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ARTICLE I. *Clinical Bulletin of the Baltimore Infirmary.* By the EDITOR.

THE Baltimore Infirmary is under the government of the University of Maryland, and was established expressly, as a Clinical School for the medical department of that Institution. It is situated in a healthy part of the city, in the vicinity of the university, so as to be of easy access to the medical class, during the period of their attendance upon the lectures. It has eight wards, and about ninety beds. Three wards are appropriated exclusively to seamen; three to white male citizens; one to females, and one to blacks. Patients are admitted on paying three dollars per week, which entitles them to all the advantages of the house; and during the winter session of the university, each professor is at liberty to admit a limited number of cases, on charity, when they possess a character of interest for clinical instruction. Many individuals of respectability and standing enter the house for medical and surgical assistance, and most of those who resort to it, besides the seamen, are industrious mechanics and laborers. Since the commencement of the extensive scheme of public works, which have been carried on for the last few years in the neighborhood of Baltimore, a considerable proportion of the patients have been laborers from the several rail roads, many of them even coming from Harper's Ferry, and other remote sections of the works. Amongst these, accidents have been frequent, and during the summer and au-

tumnal months, they furnish numerous cases of fever and dysentery. Many individuals also resort to the institution from remote parts of the state, and from the adjacent portions of Virginia and Pennsylvania, to have important surgical operations performed, and to be treated for important diseases. From these various sources, abundant materials for clinical instruction are furnished, and the institution may be justly considered one of the best clinical schools in the country. The average number of patients in the house at one time, during the present year, has been from sixty to seventy, and the aggregate number admitted in the course of the year, is about seven hundred and fifty or eight hundred.

The affairs of the house are under the direction of a Superintendant, and its internal economy is attended to exclusively, by the Sisters of Charity, who devote their constant and unwearied attention, with a kindness truly sisterly, to the comforts of the sick. The professional services are rendered by two surgeons, and three physicians, consisting of the Professors of the medical department of the university, who attend alternately. Professors Hall and Smith have charge of the surgical department. Professors Potter, Dunglison, and myself, of the medical—the term of duty of each embracing a period of four months. There are besides, four resident pupils, who prescribe for the sick in the absence of the physicians and surgeons, and carry all their directions into effect.

During the winter months, the institution is attended by the Professors of the practice of medicine and surgery, who make their visits daily, accompanied by the students, and deliver clinical lectures on their respective cases twice a week. My term of duty commences on the first of July, and terminates on the first of November, thus embracing the most sickly months in the year, and a period at which there is generally admitted, a great proportion of cases of fever and dysentery. As I propose occasionally to occupy the pages of this journal with some of the most interesting results of the excellent field of clinical experience thus afforded me, I shall offer a few remarks, in the present number, upon some of the diseases which have come under treatment during the first eight weeks of my term of service. As there is no regular case book kept in the house, except the hasty notes made by the resident pupils for their own use, many interesting details, and important facts, must necessa-

rily be lost; but with the assistance of the notes kept by the young gentlemen of the house, who have obligingly furnished me with them, I shall endeavor to make up a report, embracing a few of the most interesting cases.

1. *Gastric, or more properly Intestinal Fever.*

There is perhaps no disease, which presents itself under more numerous shades and modifications, than the summer and autumnal fevers of malarious regions—those of each season have their peculiarities, and even at different periods of the same season, they experience changes, either dependent upon temperature, or other causes, which require the treatment to be varied. They are likewise so much under the influence of local circumstances, habits, occupations, &c. that it is not unusual to find the disease of the same autumn, even within the limited compass of a few miles, displaying itself under a variety of forms, each one exacting some slight difference in the mode of treatment. Hence the clashing, and apparently contradictory descriptions furnished by authors, of the same disease, and the very opposite and dissimilar methods of treatment laid down by them. Hence too, the almost infinity of appellations which have been applied to the disease, most of them predicated upon some accidental phenomenon occurring during its progress. In some seasons and situations, the fevers of autumn are characterised by a high degree of disturbance of the functions of the liver, stomach, and duodenum, giving rise to a copious secretion of vitiated bile, which is ejected in great quantities, both by vomiting and stool, or by intense irritation of the mucous membrane of the stomach and duodedum, together with overwhelming congestions of the liver and the portal circulation generally, and a consequent suspension, or impairment of the hepatic secretion. To this variety of the disease, the denomination of bilious has been applied, and from the alternate remissions and exacerbations which attend it, it has been called bilious remittent fever. This form of fever has been well described by the Greek physicians, and in more modern times, it has been observed so frequently, especially in warm latitudes, and in marshy districts of country, as to give rise almost universally, to the application of the term bilious remittent fever, to the different varieties of the febrile affections of autumn. Much mischief has been produced by this general extension of the term,

and it is particularly important, that it should be restricted to those cases in which there is a marked implication of the hepatic function, or to the bilious fever as it has been described in modern times, by Baillou, Tissot, Fink, Chalmers, Stoll, Burnett, Johnson, Jackson, Annesley, and many of the other writers on the diseases of India, and other warm latitudes.

Another variety of fever, is that in which symptoms of gastric disturbance are predominant. Under such circumstances, the disease falls with its principal force upon the stomach, and frequently upon the upper part of the duodenum. When this latter organ is much affected, there is, besides, in many cases, more or less consecutive disturbance of the liver, giving the disease something of the character of bilious fever. When the disease affects the stomach chiefly, it has been very properly denominated *gastric fever*, or by the proselytes of the Broussaian school, *gastro-duodenitis*. When to the other symptoms, are superadded such as denote a disturbance of the liver, the term *gastro-duodeno-hepatitis* has been employed, by the advocates of the same doctrines, to designate the parts implicated. This variety of fever not unfrequently presents itself under a form of great intensity, an example of which is furnished by the yellow fever, which seems to fall with its principal force upon these three organs.

It should be remarked, however, that the term gastric fever has been employed in a kind of generic sense, comprising all those forms of the disease, the chief seat of which is either the stomach, or any part of the intestines. To such an application of it, there are strong objections, inasmuch as there are numerous cases, in which nearly the whole violence of the disease is sustained by the lower part of the small intestines, the stomach being but slightly affected, and only suffering in consequence of its close sympathies with the principal seat of the disease. This distinction, it is important to observe, in reference to the form of the disease which will form the principal subject of the following remarks, as in it, the sufferings of the stomach have been found to be trifling, compared to those which were experienced by the lower part of the ilium and the cœcum. These two organs, especially the former, have been found in every case which has been examined, to constitute the points upon which the fever inflicted its greatest ravages, the implication of other parts of the system being merely consecutive, and though

often considerable, yet never equalling in intensity, the affection of the lower part of the ilium. Hence, when the disease assumes this form, it is more particularly entitled to the appellation of *intestinal fever*,—a term which has been very appropriately employed by some of the best writers on the subject, and which should be preferred to any other, if the term fever, in its ordinary acceptation, is to be retained; because it more clearly defines the seat of the disease, and consequently, points more directly to the indications to be fulfilled in its treatment.

Besides the terms bilious and gastric, which, as I have previously remarked, have been applied indiscriminately, to all the varieties of the autumnal fevers of malarious regions, they have received various other appellations, predicated for the most part upon some accidental complication observed in their progress. Amongst these, it may be sufficient to enumerate the appellations of mucous, pituitous, typhoid, nervous, ataxic, adynamic, mesenteric, and various others, which have been applied to the same disease, under some one or other of its numerous shades. To the same head, must also be referred several other names, of more modern origin, which have been employed to represent this form of disease: as for example, gastro-enteritis, follicular enteritis, dothinenteritis, iliodicliditis, &c. Those who have adopted these latter appellations, either regard the fever merely as a consequence of local inflammation of the mucous membrane of the alimentary canal, or adopt the opinion, that the inflammation of the mucous follicles of the intestines, and their subsequent pustulation and ulceration, should be considered as a kind of eruption, bearing the same relation to the fever, that the variolous eruption does to the fever which ushers it in. These points have been somewhat fully discussed in the first and third numbers of the Baltimore Medical and Surgical Journal, in which I attempted to furnish an exposition of the general pathological characters and treatment of follicular enteritis, and to which I must now refer for further details, my present object being merely to offer a few remarks explanatory of the character of the intestinal fever, as it has presented itself during the present season.

The first cases of the disease were admitted into the Infirmary early in July, from which time up to the present period, upwards of eighty cases, including some of unmasked intermittent, have been treated. A large proportion of them have been received from the Washington Rail road, the Point of Rocks,

and Harper's Ferry, the subjects being, for the most part, laborers on the Chesapeake and Ohio canal, and the different sections of the rail roads. They have been, with a few exceptions, Irishmen, some of whom have only been a short time in the country, but all much exposed, and irregular in their modes of life. A few of the individuals have been Germans; and besides those coming from the sources mentioned, some have been received from Federal Hill, Fell's Point, and other parts of the city and adjacent country. Those from Fell's Point, have been mostly seamen, who with a few exceptions, had been attacked with the disease after their arrival in Baltimore. It should be remarked, however, that while cases of fever have been thus numerous in the infirmary, owing to the extreme dryness of the greater part of the summer, the city has been unusually healthy.

In its mode of attack, the disease has presented nothing unusual. It has frequently been ushered in by a slight chill, sometimes rigors, followed by pain of the head, loins, and extremities,—a hot dry skin, flushing of the face and eyes, intense thirst, and great restlessness. Few opportunities have presented, however, to enable me to judge of the symptoms of the forming stage, as most of those who have been admitted, had been laboring under the disease for several days, and several of them, for more than two weeks, before their arrival at the infirmary. Disturbance at the stomach, further than a mere loss of appetite, and a sense of oppression, has not been observed in many cases, nor have there been bilious vomitings, either at the onset or in the progress of the disease, except in a few cases, and those for the most part of the intermittent form. In some cases which were seen in the early stage, the remissions were distinct, and the subsequent exacerbations preceded by a slight chill. More frequently, however, there was no chill after the first paroxysm, and the exacerbations, though still well marked, were not followed by so complete a remission as at first.

But as previously stated, few opportunities have occurred of seeing the disease in this form, most of the patients having been laboring under the fever for several days, and frequently submitted to very active treatment, before their admission. They have generally come in, with the muscular system much prostrated, the tongue of a fiery redness upon its borders, contracted and pointed, and incrusted with a thick, dirty, dark colored, or even a brown fur over the whole of the base, and along the

middle, and in a great number of cases, it was as dry and rough as weather beaten leather. A dirty sordes have in like manner covered the teeth in the above instances. In some instances the whole epithelium of the tongue peeled off, leaving it smooth, dry, and intensely red. With these conditions, there has generally been great tenderness upon pressure observed in different parts of the abdomen, and particularly in the right iliac, and the hypogastric regions. In many cases, the tenderness has been more diffused, and proved a source of much uneasiness, while in some, it has been so obscure as to be scarcely perceptible. Some of the cases have been attended with diarrhœa; but this symptom has, in most instances in which it has been observed, only made its appearance at an advanced period of the disease. Dysenteric symptoms have likewise existed in several instances, and when such cases have been harshly treated at the commencement, this complication has been found to be exceedingly formidable, and difficult to control.

Manifest exacerbations have continued to recur in most of the cases, even when protracted, attended with pungent heat, and a general dryness of the surface; extreme dryness of the tongue, even when it was before moist; considerable increase of thirst and restlessness, and evidences more or less strong, of cerebral and meningeal irritation.

Delirium, or other evidences of cerebral determination, have not been frequent in the early stage of the disease, and though the former has not been a very frequent condition in the later stages, in almost all the cases which assumed a protracted character, the irritation, after limiting for some time, its principal ravages to the intestinal mucous membrane, has gradually extended to the nervous centres, giving rise to evidences of disturbed intellect, and the whole train of symptoms which characterise arachnoid inflammation. This secondary complication has generally stolen on insiduously, at first merely revealing itself during the exacerbations; but in a few instances, it has burst forth suddenly, and with extreme violence, characterised by furious delirium, overwhelming prostration, frequent small pulse, muscular tremors, subsultus tendinum, injection of the eyes, and either contraction or dilation of the pupils. At this juncture, the tongue has always been brown and extremely dry and scabrous. In some cases, the implication of the nervous system has been characterised by a kind of incoherence of in-

tellect, or vacant stupidity, seldom so profound, however, except in the most advanced stages of the disease, that the patient could not be easily roused. Tympanites has been observed in a few cases.

A great number of patients who had been under treatment before their admittance, came in in a state of salivation, but with two or three exceptions, the mercurial disease, instead of arresting the fever, aggravated all its symptoms. It increased the tenderness of the abdomen, the dryness of the tongue, the sordes on the teeth, the general prostration of muscular energy,—hastened the development of the nervous stage, and rendered the cases more formidable, and in every respect more difficult to manage. Many who were not salivated, had been so actively treated by emetics and drastic cathartics, especially calomel and jalap, that nearly the same train of mischievous consequences had to be encountered after their admission. Some of those who had been salivated, had deep ragged ulcers involving their lips, tongue, and cheeks, from which they experienced much suffering, and upon one individual who was thus affected, the mercury had so far exercised its pernicious influence, as to give rise to a complete state of anæmia.

The duration of the disease has presented nothing fixed or regular. Some have convalesced in a few days and left the house, while in other cases, the disease has continued with but trifling variations, for two, three, or four weeks, or even longer, manifesting a strong tendency to relapse under the influence of the slightest imprudence in diet.

In those who have died, the mucous glands and follicles of the ilium, have been found in every case, one only excepted, in an intense state of inflammation, and extensively ulcerated. These conditions have been generally found in the lower part of this intestine, near its termination in the cœcum, and in many cases this latter gut, as well as the lower part of the jejunum, have been found similarly affected. The elliptic patches formed by Peyer's glands, have been the parts chiefly involved, and in every instance, except the single one already alluded to, they have been found violently inflamed, much enlarged, and generally extensively ulcerated. These ulcers, in some of the cases, have been so numerous, large, and closely clustered together, as to occupy nearly the whole internal surface of the intestine, and destroy all its tunics, except the peritoneal, by

which alone, the contents of the organ were prevented from being extravasated into the cavity of the abdomen. The glands of Brunner have been found similarly affected; and in most of the cases where ulceration was extensive, the mesenteric glands were much enlarged and inflamed. Numerous patches of inflammation also existed upon different portions of the mucous membrane, and particularly along the tips of its different folds. The lining membrane of the stomach, though more or less inflamed in several cases, has presented far fewer traces of disease, than that of the small intestines. In one case only did peritonitis exist, and in that it was most intense. It was consecutive of previous inflammation of the mucous surface, and besides other lesions of this structure, a large ulcer was found occupying nearly the whole extent of the pyloric orifice of the stomach. In some of the cases, the liver and spleen have been found congested and very much softened; but these are common conditions in protracted acute diseases. In the dysenteric cases, besides the ulceration of the ilium, the mucous membrane of the colon and rectum, throughout nearly the whole of its extent, has been found extensively disorganized, by large irregular ulcers, and nearly the whole surface thickly coated over with a tenacious albuminous deposite, of a deep black color, and so adherent as to be with difficulty detached.

The principal appearances observed in the brain, have been an effusion of clear or bloody serum from the arachnoid membrane, and more or less injection of different portions of that structure.

These are the general phenomena which have been presented by the fever of the present summer, which differs in no very essential particular from that of last year. The cases of the present season have been more numerous than they were during the same period of the last, but they have resembled each other during both, in all their leading features, and in one especially,—their formidable character, and protracted duration.

From the preceding remarks, it may be inferred, that whatever the primary impressions produced by the remote and existing causes of the disease may have been,—whether they began upon the skin, in the nervous system generally, or the internal membrane of the alimentary canal, the direct tendency of the disease was, to single out as it were a portion of this latter structure, upon which to exercise its principal violence.

The changes or modifications of the vital powers which usher in disease are too delicate to be analyzed or appreciated by any powers of observation that can be brought to bear upon them; but when a fever has been once developed, although it may be attended with a general disturbance of the animal economy, it always selects out one or more organs, which become more prominently affected than the others, and which form so many centres, from which the morbid sympathies are propagated to those parts, which sympathise most intimately with the organs first implicated, thus giving extension to the mischief, and constantly superadding new complications. Hence, in nearly all the cases which have been seen during the early stage of the disease, the symptoms arising from the affection of the mucous membrane of the alimentary canal, and especially of the ilium, were predominant. From this point, the irritation radiated to the other organs in the order of their susceptibilities, thus giving rise to the complications taking place in the more advanced stage of the disease, in consequence of the nervous centres, and particularly their arachnoid covering, becoming implicated. In all cases of fever assuming this form, the mucous membrane, and the nervous centres, therefore, constitute the points which the disease selects upon which to inflict its most formidable mischief; the first primarily,—the second consecutively. Other organs, it is true, are more or less disturbed, as must necessarily be the case from the very nature of their relations, yet the degree of their suffering is always trifling, compared to that which is sustained by the parts principally affected. The secretions of the glandular apparatus are increased, diminished, suspended, or altered in quality; cutaneous exhalation is in a great degree interrupted, or it is performed in an unhealthy manner; the action of the heart and arteries is accelerated; the blood is distributed irregularly, and is altered in its properties, and the muscular energies are enfeebled. Still, throughout the entire progress of the disease, the mucous surface of the alimentary canal declares its sufferings by signs which are the most conspicuous and unequivocal; the evidences of its distress are predominant, and even after the cerebro-spinal centres become affected, the indications of mucous irritation, in a great majority of instances, still continue. Cases nevertheless occur, in which the secondary affection of the nervous centres,

may to a certain extent mask, or as it were suspend, the force of the disease in the mucous membrane.

These facts must be constantly attended to in the application of remedies. They prove how improper some of the curative procedures are, which are frequently resorted to in the treatment of this form of fever. If the intestinal mucous membrane is in a high state of irritation and inflammation, from the onset of the disease, the almost indiscriminate employment of active emetics and drastic cathartics, which forms so prominent a part in the common modes of practice, cannot be founded on correct principles, and must often exasperate the disease. True, they frequently succeed by exciting a strong revulsive impression, by promoting copious secretions and exhalations, and giving rise to sedation of the remote organs. Yet, should excitement not be previously reduced to a point which will be compatible with the attainment of these ends, they must necessarily prove mischievous, as they do also, in all cases, when the inflamed surface is perpetually submitted to their irritating influence.

A plan much more consistent with sound principles of pathology, is that which consists in the general or local abstraction of blood, gentle aperients and enemata for removing all sources of irritation from the alimentary canal, external revulsives, cold to the surface of the body, where there is excessive determination of blood, or warmth where it is defective. With these means, should be included cooling and refreshing drinks, a mucilaginous diet, and an absolute avoidance of every source of irritation. When local depletion is demanded, it should be practised by leeches or cups, applied as near as possible to the organs most affected, and the revulsive remedies should be applied over the abdomen, to the head or the extremities, according to the nature of the case. The application of cold should be either general or partial, according to the degree of the excitement, and the extent of its diffusion. When the heat is intense and equally diffused, the cold affusions, if proper depletion has preceded, should be preferred. But where it is more moderate, and unequally distributed, ablutions or sponging will be the most elligible method of employing cold. When the system has been reduced to the revulsive point, an impression should be maintained somewhere upon the surface of the body, to counteract the tendency of the fluids towards the suffering organs. And where there are remissions and exacerbations, as the latter are always brought out

by the gradual accumulation of irritation, and consequently, of the circulating fluids in the organs most affected, such an event may be often prevented, or its effects mitigated, by inviting the circulation to the surface, in anticipation of the exacerbation, by means of strong revellents, as cups, blisters, sinapisms, &c. By adopting these principles, I have often seen a few cups to the abdomen or back of the neck, or a blister to the same parts, or to the inner surface of one thigh, either completely avert the exacerbation, or render it comparatively mild. Nor are these means useless after the exacerbation has taken place. By determining actively to a new point, they break up the internal irritations and congestions, upon which the paroxysm depends, and bring it to a speedy termination. A few cups applied to the epigastrium, under such circumstances, or what is still better, a number of leeches proportioned to the condition of the patient, often quiet all the sufferings of the individual, excite a free and equable perspiration, render the tongue moist and expanded, and induce a state of comfort and tranquillity, where all before was suffering and despondency.

As my object is merely to speak of general principles, and to adduce a few facts corroborative of them, I must refer for further details, in illustration of the principles upon which my practice in such cases is predicated, and the manner in which it is carried out, to the papers in the first and third numbers of the Baltimore Medical and Surgical Journal already alluded to. The following cases, out of many others of a similar character, are reported with the view of showing the character of the disease, and the general method pursued in the treatment of it.

The first case demonstrates very clearly the advantages of the cold affusions.

Case I. Charles F. Langstaff, aged 28, was admitted into the Baltimore Infirmary, on the 11th of August, 1834. He had been sick two days before his admission.—His first symptoms were severe pain of the head; nausea; pain and tenderness of the epigastrium, high fever, and constipation of the bowels. He had been freely bled (according to his own report to thirty ounces) without relief, and had taken a dose of salts, and afterwards a drop of croton oil, which operated freely.

At the period of his admission, he was laboring under intense fever:—his skin was hot and dry; his head acutely painful; his pulse strong and active; his tongue covered with a whitish fur,

which was disposed in patches; his bowels constipated, and the epigastrium painful, and tender on pressure.

Under these circumstances, he was submitted to the cold dash, which immediately subdued all the urgent symptoms. The excitement, however, recurred in a short time; but by repeating the dash twice, in the course of two hours, all his unpleasant feelings were effectually subdued, and after the administration of a purgative enema which operated freely, and the application of cups to the back of the neck, he fell asleep, and did not awake until next morning.

Aug. 12th. Feels well—Ol. Ricini, which operated three times—free of fever—skin moist and pleasant—stomach and head relieved—no tenderness of the epigastrium on pressure—six o'clock P. M. slight exacerbation—tongue still furred—took a gentle alterative aperient at night.

13th. Free of fever. Sulph. Quinine.—He had no recurrence of his paroxysm, and from this time convalesced rapidly.—*Reported by Mr. Thos. A. Healey.*

Remarks.—This case was received early, yet not until after active remedies had been employed without contributing much to arrest its progress. Already had evidences of gastric and intestinal irritation displayed themselves, and it is highly probable, that if the flame had been fed by the reiterated irritation of drastic cathartics, it would have gone on to assume a much more formidable character. The system was in that intense state of excitement, when cathartics could neither produce secretions, or excite revulsions; consequently, there was no indication for their employment. All that was requisite to be done in the way of evacuating the bowels, could be better accomplished by an enema, or a mild laxative. The former was resorted to, and produced the effect. The indication was clearly to subdue excessive excitement, and as general bleeding had been already pushed to a liberal extent, the young gentlemen very properly resorted to the next most effectual means of attaining that object;—the application of cold and the local abstraction of blood. The first was administered by affusion; yet notwithstanding its effects were prompt, the erethism of the nervous system was so great, that the excitement was only subdued effectually, after the employment of the dash three times, in the short space of two hours. To have stopped short of the attainment of the full effect of the remedy, would have been to deprive the patient of the perfect

relief which it was capable of affording, and which was finally realized, by repeating it as long as the necessity continued to recur. The revulsive and depletory effects of the cups were also no doubt beneficial, and after a perfect intermission was obtained, the quinine, administered in large doses, tended to put a stop to the paroxysmal character of the disease, and hasten convalescence.

The following is a case of a different kind.

Case II. J. Nealis, laborer, aged 27, was admitted August 30th, at five P. M. Has been laboring under fever eight days, at the Point of Rocks, and has taken one dose of calomel, followed by salts.

On the night previous, he had been compelled to sleep in the open air, which was damp and chilly, and on the day of his arrival, had travelled seventy miles. He is now much oppressed, and his energies prostrated; his countenance ghastly; his pulse feeble; tongue coated with a thick dirty fur; bowels constipated, and extremities cold.

Eight P. M. Since he has been in bed, his skin has become hot, and his pulse fuller; but his restlessness and sense of oppression are very much increased. There is also slight tenderness on pressure over the abdomen; eight cups to the abdomen; Ol. Ricini ʒi.—effervescent draught every two hours during the night, the skin to be constantly sponged with cold water, as long as the heat continues.

Aug. 31. Eight A. M. He is much better—the oil not having operated, the dose directed to be repeated, and its operation promoted by an enema in the afternoon.—Eight P. M. The medicine has operated, and afforded great relief to the patient. His evening exacerbation was much slighter than usual—the cooling regimen to be adopted during the night.

Sept. 1. Eight A. M. His condition is very much improved, and the expression of his countenance is quite lively. His tongue is much cleaner, and his mouth is slightly sore, from the dose of calomel which he took before his admission.—Enema to be repeated in the afternoon.—Eight P. M. Exacerbation very slight—tongue cleaning rapidly, and he complains of being hungry.

Sept. 2. Improvement still continues—enema to be repeated—no evening exacerbation.

From this time forward, his convalescence was progressive,

and it was only found necessary to give him occasionally, a gentle aperient, and to apply dry cups to his head to relieve some pain and heaviness of which he complained.—*Reported by Mr. S. G. Baker.*

Remarks.—When this man came into the house, his case presented an alarming aspect. He had been sick for several days,—had been much exposed, and travelled a distance of seventy miles, in a condition which was so formidable, as to occasion him to be refused admission into any of the houses at the Point of Rocks, or on the way, for fear he should die on the hands of their inmates. His prostration and exhaustion at the period of his arrival rendered him unable to help himself, and his general ghastly aspect, feeble pulse, and cold extremities, showed plainly that the organs were already suffering severely. The state of his tongue, and the abdominal tenderness, pointed to the mucous membrane of the digestive organs as the principal seat of the irritation, and the condition of the nervous and muscular system, showed clearly, that the nervous centres were about to become seriously involved. A timely resort to revulsives and local depletion, however, and the employment of other means calculated to subdue excitement, arrested at once, the further progress of the mischief, and by unburdening the affected organs, so far restored their recuperative energies, that a rapid convalescence ensued with very little more assistance. Such cases are too often evacuated by emetics and cathartics, at the commencement, to an extent which is injurious, and when the organs become so far embarrassed, either by the disease or the conjoint influence of it and the remedies, as to give rise to the fallacious symptoms of debility which the individual presented at the time of his admission, stimulants are poured in with a liberal hand, to sustain what is regarded the sinking powers of life, but what in reality requires a strict antiphlogistic treatment to remove it. Excessive purgation at the commencement of a fever, and excessive stimulation towards its conclusion, I feel assured, from repeated observation, has done more mischief, than any of the multifarious modes of practice that have ever been employed in that class of affections.

Case III. James Grinum, seamen, aged 20, was admitted July 28th. Has been sick five days, during which time he has taken several cathartics—complains of great pain of the abdomen, much tenderness on pressure over the stomach and region

of the colon, and frequent watery evacuations pass from his bowels involuntarily. There is likewise pain of the head and back, small frequent pulse, and hot dry skin.

Cups to the abdomen, which produced a most happy effect—Submuriat. Hydrarg. ℈ i.—Effervescing draught every two hours; skin to be sponged during the night with cold vinegar and water.

29*th*. Feels much better. Had but one evacuation during the night; pain in the abdomen greatly relieved; complains of uneasiness in the stomach; tongue expanded and covered in the middle with a yellowish fur; skin moist.—Submuriat. Hydrarg. gr. x.

Eight P. M. Considerable exacerbation; pain in the head, back and loins; great oppression at the precordia; skin hot and dry; tongue coated with a brown fur; great thirst and restlessness; calomel operated twice; operations of a bilious character—Effervescing draught every hour; cold to the head; body to be sponged.

30*th*. Not so well; complains of great pain of the loins, slight nausea and tenderness of the abdomen on pressure; his gums are slightly affected by the mercury; bowels free; blister to the abdomen.—Effervescing draught continued.

Nine P. M. Feels much better; exacerbation slight; has had two evacuations during the day, and only complains of the blister.

31*st*. The improvement continues; rested well; no fever; the tongue coated with a whitish fur, except at the edges, which are clean and moist; has had one evacuation from the bowels; no excitement of the pulse.—Effervescent draught; sinapisms to be applied to the lower extremities, in anticipation of the exacerbation.

May 1*st*. Much better; rested well last night; free of fever; the exacerbation of yesterday was very slight; has had one evacuation from the bowels; tongue cleaning.—Blister to the inner side of one thigh, in anticipation of the next paroxysm.

2. Is improving rapidly; passed the night comfortably; escaped the exacerbation yesterday; bowels open; tongue slightly furred.—Sulphate quinine, grs. v. every two hours.

3. He continues to improve, and from this time required no further treatment, except a few doses of quinine.—*Reported by Mr. Alexander H. Bayly.*

Remarks.—The analysis of this case presents several points of interest. At the period of his admission, the pain and tenderness of the abdomen, and the involuntary watery dejections from the bowels, shewed that the mucous membrane of the alimentary canal was suffering severely.—The pulse was too feeble to justify general blood-letting; recourse was therefore had to cups, for the purpose of drawing blood locally, and creating a strong revulsive impression, with the intention of transferring irritation from the part most affected. The result, as remarked by Mr. Bayly, was most happy. A scruple of calomel was administered with the hope of making a strong impression upon the stomach and duodenum, thus inviting free secretions and exhalations, and transferring irritation from the mucous membrane of the ileum cœcum and colon, which, from the diarrhœa and other symptoms, were conceived to be the parts most severely affected. Some relief was obtained, but from what occurred, it is somewhat questionable if it was not mainly attributable to the influence of the cups; for it will be found, that after the administration of another dose of calomel, of ten grains, that the exacerbation was severe; the pain of the head and back considerable; the skin very hot and dry; the precordial distress great, and the tongue covered with a brown fur, manifesting a disposition to become dry. At this juncture, a large blister was applied to the abdomen, and again the good effects of revulsion were fully realized; for, from this period, a striking amelioration was observed, and by repeating the revulsion, first by sinapisms, and then by a blister to the inner side of one thigh, convalescence was soon established, and the patient recovered rapidly. The cold sponging, which in this, as in all the other cases, where the skin was hot, was constantly employed, produced a very happy effect, by soothing the nervous erethism, and quieting excitement.

Case IV. Humphrey Martin, laborer, on the Rail-road, aged 30, was admitted July 17th. Has been sick four days—and says that his first symptoms were, pain of the head, shoulders, back, and loins; a general uneasiness and constipation of the bowels. He has taken some purgative medicine. He now complains of severe pain of the head; his bowels are constipated; his tongue is coated in the middle with yellowish fur inclined to white, while its edges are red. His pulse is full and tense, skin hot and dry; the conjunctiva of the eye of an icteric hue; the thirst

intense, with extreme restlessness and precordial oppression.—Venesection to fifteen ounces; Submuriat. Hydrarg. ℈j.; soda powder every two hours; cold to the head; body to be constantly sponged with cold water.

Nine P. M. The medicine has operated twice; stools dark colored; feels much better; skin moist.—Continue soda powders, barley water for diet.

18*th*. Much relieved; head easy; pulse soft. Ol. Ricini.—In the evening there was an exacerbation of fever, and tenderness of the epigastrium on pressure; has had two evacuations from the bowels in the course of the day; cups to the abdomen; body to be sponged with whiskey and water.—The drawing of the cups produced immediate relief.

19*th*. Improving—Submuriat. Hydrarg. gr. v. Pulv. Rhei gr. x. three times a day—soda continued.

20*th*. The whole body intensely icteric; tongue slightly coated with a thin yellow fur; urine high colored.—Ol. Ricini, continue other medicines.

21*st*. Improving rapidly; mouth slightly affected by the mercury; no exacerbation; bowels open; pulse nearly natural.—Pl. Hydrarg. Extract. Alk. Jalap. ā ā gr. v. night and morning.

31*st*. Discharged perfectly well.—*Reported by Mr. A. H. Bayly.*

Remarks.—This case presents an example of another modification of the disease. The mucous membrane of the alimentary canal was the principal seat of irritation, yet it was chiefly confined to that portion of it which lines the stomach and duodenum, extending its influence from thence to the liver, disturbing the function of that organ, and thus giving rise to the icteric condition of the whole system. It was, in short, a case of gastro-duodenitis, with hepatitis superadded, the affection of the liver being consecutive to that of the mucous membrane, and dependent upon the extension of the irritation along the lining membrane of the bile ducts, which is directly continuous with the mucous membrane of the duodenum. The high state of excitement under which the patient was laboring, at the period of his admission, clearly indicated the necessity of abstracting blood, and the operation was accordingly attended with considerable relief. Excessive action being thus reduced, a large dose of calomel promised advantage, in virtue of its power of promoting copious secretions from all the adjacent parts, and exciting re-

vulsion from the liver. Still, though apparently beneficial, it did not afford complete relief; for on the subsequent day, there was tenderness of the abdomen on pressure, with a smart exacerbation of fever in the evening. To relieve this, cups were applied, and their beneficial influence was strikingly manifested. The amelioration of the symptoms was immediate, and from this period, the improvement was progressive. The internal irritations and congestions seemed to be at once broken up by the full revulsive impression they excited, and it was only necessary afterwards, to persevere in a rigid diet, and to excite by gentle alteratives, the secretory action of the glandular and follicular apparatus.

Case V. Michael Logan, laborer, aged 25, was admitted, August 15th. Has been sick five days; slight mercurial fetor perceptible in his breath; he complains of pain of the head and giddiness; the pulse is full but compressible; tongue coated with a thick dirty fur, and red at the point; bowels constipated; skin hot and dry.—Cups to the back of the neck; Ol. Ricini; ice to the head, and the usual cooling remedies.

16*th.* But slightly improved; evening exacerbation as violent as on the preceding day; sleeps almost constantly, and is not easily roused.—Ol. Ricini; cold to the head, and sponging continued.

17*th.* No improvement in the symptoms; tongue dry at the point; eyes considerably injected, and present a pinkish suffusion.—A blister to the back of the neck.

18*th.* The head apparently relieved in a slight degree; bowels relieved by an enema; cups to the abdomen.

19*th.* Not much alteration—is still sluggish and heavy; tongue continues furred, and becomes dry at the tip during the exacerbations.—Cooling regimen continued.

20*th.* No improvement.—A blister to the abdomen; Submuriat. hydrarg. gr. x.

21*st.* His tongue is much cleaner.—Ol. Ricini ʒ i.; cold applications continued.

22*d.* Improving slowly.—Massa pil. Hydrarg. gr. v.; Extract Colocynth. comp. gr. x., at night.

24*th.* Still better—bowels rather inactive.—The same prescription repeated.

From this time convalescence proceeded without interruption, and he was discharged well, on the 4th of September.—*Reported by Mr. S. G. Baker.*

Remarks.—The case of this man, presents an example of the disease, in which there was considerable congestion of the abdominal organs, and a strong tendency to serious embarrassment of the nervous system. Indeed this latter tendency was so strong, at the period of his admission, that for two or three days afterwards, the principal attention was directed to the brain, while the affection of the mucous tissue of the stomach and bowels, and the organs directly associated with it, were too much neglected. This was no doubt the primitive seat of the disease, the affection of the head, and of the nervous system generally, being only consecutive, and dependent upon an extension of irritation from the mucous membrane, through the ganglionic nerves, to the cerebro-spinal axis. Hence it will be seen, that although cups, blisters, and cold applications were directed to the head, to overcome the embarrassment of the brain, not much benefit was realized, until more attention was directed to the abdomen. The tongue still continued furred and dry at the tip, and the exacerbations were not interrupted or abated in violence. The irritation of the gastro-intestinal mucous membrane was so considerable, and was associated with such extensive congestions of the internal organs, that even the strong revulsive influence of cups was not sufficient to break it up, and it was only after they had prepared the way, that the operation of a large blister laid upon the abdomen, succeeded in producing that effect. The result was also favored, in a considerable degree, by the calomel, which was administered at this period, and which by eliciting a free secretion from the mucous surface, and from the congested liver, produced a good effect.

Case VI. Edward Dunn, aged 30, admitted August 4th. Has been sick eight days.—Was first attacked with pain of the head, and the ordinary symptoms of fever.—Is now affected slightly with mercury.—His symptoms at present are, dull confused pain of the head; great stupor; tenderness of the abdomen on pressure; tongue dry, furred in the middle, and red upon its borders; pulse frequent, small, and feeble; skin hot and dry, bowels constipated for the last two days; articulation exceeding difficult, and scarcely intelligible.—Cups to the back of the neck and abdomen—a blister to be afterwards laid upon the latter region; cold to the head; soda every two hours; purgative enema.

5th. Rather worse—great stupor and slight delirium—articu-

lation even more difficult than yesterday—the other symptoms nearly the same—had two passages from the bowels in bed.—Blister to the back of the neck; Massa Pil. Hydrarg. gr. iij.; Pulv. Ipecac. gr. 1. at night.

6*th.* The delirium and stupor continue; muscular tremors incessant; pulse very weak and frequent; tongue dry and brown; extremities cold; cannot reply to questions applied to him.—Blister to one thigh, sinapisms to the legs and arms; Liq. Acetat. Amon. ʒ ss. Spits. œth. Nitros. ʒ i. every two hours; cold applications to the head continued; also, Pill of blue Mass and Ipecac. at night.

7*th.* Much better; delirium nearly gone; stupor and muscular tremor much abated; tongue and skin moist; two passages nearly natural.—Prescription of yesterday continued.

8*th.* Still continues to improve; but there being some evidences of cerebral determination, a blister was applied to the other thigh.—The former prescriptions continued.

9*th.* The stupor is entirely relieved; tongue cleaning, and the individual free of fever, and cheerful.

12*th.* Fully convalescent. He finally left the house perfectly recovered.—*Reported by Mr. Thos. A. Healy.*

Remarks.—This case presented a highly formidable character, and at one time, threatened to terminate fatally, in despite of all the remedies employed. The disease had already seized violently upon the nervous system, and for two or three days, symptoms of arachnitis were predominant. By the revulsive influence of cups and blisters, and the antiphlogistic remedies employed in the preceding cases, all the difficulties were finally surmounted, and health returned. The encephalic implication was clearly secondary, but although towards the close of the disease, its manifestations became more conspicuous than those of the mucous tissue of the stomach and intestines, the latter still maintained a character of considerable intensity, until the irritation was broken up by antiphlogistics and revulsives. The case was one of a very interesting character, but it is much to be regretted, that only hasty notes were taken of it at the time, and that it is only possible, in consequence, to furnish a very imperfect sketch of its characters.

Case VII. Luke Riley, Point of Rocks, aged 28, admitted July 28th.—Has been sick ten days, during which time he has taken three doses of calomel and jalap, one of tart. emetic,

and this morning, a dose of salts. He now complains of pain of the head and abdomen, and considerable nausea. His pulse is frequent and full, though compressible; tongue covered with a whitish fur, and red upon the borders; skin hot and dry; thirst urgent, and jactitation.—Cups to the abdomen; soda every two hours; barley water for drink.

29*th*. Some improvement—had four evacuations during the night. Pain of the head relieved; stomach composed; pulse frequent, but soft; skin soft; tongue coated in the middle with a yellowish fur; edges red.—Soda water; Submuriat Hyd. gr. x. just before the exacerbation.

8, P. M. Exacerbation violent—tongue dry, covered in the centre with whitish colored patches; borders intensely red—has had one moderate evacuation from the bowels to-day—great irregularity in the distribution of the blood—head, thorax, and abdomen very hot and dry—extremities cold as clay. Sinapisms to the extremities; cold to the head. 11, P.M. Laxative enema, which operated freely.

30*th*. Tongue dry and covered with a brown fur; great thirst; passed a very restless night.—Effervescing draught every two hours; blister to the abdomen.

8, P.M. Considerable febrile excitement—pain in the head; tongue dry; sordes on the teeth; skin hot and dry; thirst urgent; bowels open.—Soda every two hours during the night; cold to the head.

31*st*. Rested tolerably well; tongue not so dry; pulse frequent and soft; three evacuations during the night.—Soda continued; Submuriat. Hydrarg. gr. iij.; Camph. gr. i. every three hours—blister to the back of the neck.

August 1*st*. Feels better; tongue hot and not so much furred; complains of no pain; exacerbation very slight; skin moist and cool.

2*d*. Rested very well—free from fever. Bowels open once in the course of the night.—Sulph. Quinine, gr. v. every three hours.

3*d*. Relieved from all pain; no fever; pulse nearly natural.—Quinine continued.

From this time, he continued to convalesce, there being no recurrence of any unpleasant symptom.—*Reported by Mr. A. H. Bayly.*

Remarks.—This was also a very bad, yet a very interesting

case. In its leading traits, it resembled most of those which have been reported, and only differed from them in the greater intensity of its symptoms. An avoidance of perturbating remedies internally, however, and the diligent and persevering employment of antiphlogistics and revulsives, produced the most happy effects, although at one time the symptoms wore an alarming aspect.

ART. II. *Observations on Staphyloraphy, or Palate-Suture.* By N. R. SMITH, M. D. Professor of Surgery in the University of Maryland.

WE are undoubtedly indebted to Roux for having first introduced this operation into our systems of operative medicine, although it had unquestionably been several times performed previous to 1819, when he first accomplished it. At all events the operation is, as Velpeau declares, "a tous égards, une decouverte entièrement française."

It is not to be supposed that an operation so recently introduced, and one at the same time so difficult of accomplishment has yet become by any means perfect in its mode of execution. The formidable and complicated array of instruments deemed necessary for its performance, sufficiently confirms the remark.

Whoever simplifies an operation, and supersedes the use of complex and expensive instruments, renders no small benefit to surgery. Were all the instruments heretofore used, described in modern works, the student might spend his pupilage in learning their names. It is said that,

> "All the rhetorician's rules
> Teach nothing but to name his tools."

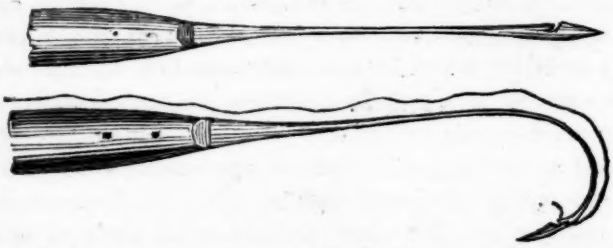
This would be no small part of the task of the surgeon did we not constantly seek to simplify our apparatus.

The instruments employed by Roux, in executing this operation, are certainly an "apparatus major," and the very sight of them is enough to fill us with dread of the difficulties and embarrassments which they are designed to overcome. Those ingeniously devised, and successfully used, by Dr. A. Hosack, of New York, are certainly liable to the same objection.

Having been twice called upon for the performance of this operation by persons from abroad, who could not remain until I procured the instruments which I then had not, I have been under the necessity of using more simple means, and I have

succeeded with so much facility that I am confident I shall never employ any other.

The only instrument, besides those found in the ordinary pocket case, at all necessary for the execution of staphyloraphy, is the needle represented in the accompanying cuts; and it is so simple an instrument that I made the first with my own hands in a few minutes. It is a needle having a permanent handle, its point a little broader than common, and bent from the point into a semicircle, the radius of which is about half an inch. Instead of having an eye near the point, as commonly, this form of needle has merely a notch upon one of its edges. This notch passes obliquely inward and backward from the point, reaching the centre of the blade of the needle. The blade, just anterior



to the notch, is broader than it is behind it, so that when the needle is thrust through the soft parts, the posterior angle of the notch passes through without impediment. This needle is armed by simply laying the ligature into the notch—the thread being of such size that it accurately fits it, and waxed so as to make it slightly adhere.

This little instrument is employed in the following manner. One end of a long ligature is laid into the notch of the needle. The patient being placed in a convenient posture, and the jaws kept widely expanded by the insertion of a cork between the molar teeth, the surgeon introduces the needle into the mouth—carries its curved portion behind the cleft palate, directing its point behind the middle of the uvula. He then brings forward the instrument, so as to thrust its point from behind forward, through the body of the uvula. If the uvula does not furnish resistance enough to enable him to do this with ease, he may seize its point at the moment with a pair of slender forceps. As soon as the point of the needle is brought fairly through, and pushed forward so far that the thread in the notch appears, the operator may withdraw the needle from the part with a slow mo-

tion, and the thread will generally slip with ease from the notch, and be left in the wound. Or that this may occur with the more certainty, the thread, when it appears through the wound, may be seized with forceps, or small hook, and disengaged from the notch.

In a manner precisely similar, another ligature is to be passed through the border of the cleft palate, about half an inch above the former. In many cases a third ligature may be inserted at the same distance above the last; but it is better that this should not be attempted when it is manifest that very strong traction of this last ligature will be necessary to bring together the opposite margins. The ligature would then give rise to much irritation, and not only fail to effect union where it is applied, but embarrass and perhaps defeat the process of adhesion in the parts included in the other ligatures.

The next step is the paring of the border of the velum. This I have accomplished with great ease by seizing both ends of the ligature, with which the uvula is transfixed, and with them pulling the uvula forward. This will render this portion of the velum nearly horizontal, and the operator may easily pare its border with scissors, either straight or having a slight lateral curvature. Or the surgeon may use a straight probe-pointed bistoury for this purpose; but the ligature must then be held by an assistant, and the surgeon must seize the inner border of the uvula with slender forceps. Care is to be taken, in accomplishing this step, not to cut the upper ligatures; and this may be avoided without difficulty by thrusting them well back behind the velum.

The surgeon next proceeds to pass the other extremities of his ligatures through the opposite portion of the velum. This is effected in precisely the manner described above. To pare the border of the velum on this side, however, it is necessary to proceed a little differently. The loop of the lower ligature, which now passes behind the velum from one side to the other, is to be hooked forward and drawn out of the mouth. This loop is then to be held by the operator, together with the end of the ligature on the side upon which he is now operating. Still greater care is here necessary to avoid cutting the ligatures above, while using the scissors or bistoury.

The concluding step of the operation is the tying of the ligatures. This is effected with great ease by forming the surgeon's

knot with the ends of the thread—then twisting each end around the second finger of each hand, and sliding each index finger along the ligature deep into the mouth, and thrusting outward with each, so as to close the knot. The knots being all formed, the ends of the ligatures are to be cut close to them.

The patient, who should have taken food and drink immediately before the operation, is now to be instructed not to attempt to swallow either liquids or solids until the calls of nature become imperative, and then he may be fed with a small quantity of panada. He must also be forbidden for the time to exercise the organs of speech, and must be kept in a perfectly tranquil state. The ligatures should be cut away on the fourth day.

When, in the case in which we operate, the fissure traverses not only the soft palate but also the bony portion, as is usually the case, the operator of course does not expect to close the anterior portion of the fissure. If, however, he succeeds in effecting pretty firm union of even a portion of the velum palati, near the uvula, he has accomplished an important object, and has achieved the principal end of the operation. It is now easy, by the employment of a suitable obturator, to close the anterior portion of the opening. The material of which I have constructed this has been ivory, and it has been made with ease by the ivory turners. It resembles two concave buttons applied to each other by their convex sides, one being a little larger than the other. There will of course be, between their borders, a groove of some depth, and about one sixth of an inch wide at the circumference. The concave sides are excavated so deeply that the instrument is quite thin and light. It is to be inserted into the opening which it is designed to close, precisely in the manner that the stud of a shirt is inserted into the button-hole; and it maintains its place in the same manner as does the stud, the contractile border of the soft palate sinking into the deep, wide groove at its circumference. In introducing it, the smaller side of the obturator is to be placed upward and pressed obliquely through the opening. If its size and form are well adapted, it immediately assumes its position and maintains it.

I have performed staphyloraphy in two instances. In the first I did not ultimately succeed, although union existed at the time that the ligatures were cut away. A high degree of inflammation occurred in the fauces, and the palate was severed the next day by ulceration. The patient would not allow me to repeat the attempt.

In the second case I succeeded with ease. The band of union, however, was not very broad; but it was sufficient to enable me to introduce the obturator in such a manner as to render the palate perfect. The patient immediately spoke with far more distinctness, and felt but little inconvenience from the pressure of the instrument. Whether it has continued to serve him thus well, I am as yet unable to say, as I have not since heard from my patient.

Note.—An instrument similar to that above described, but used for different purposes, I saw in the hands of my friend Dr. Phelps, of Vermont.

Art. III. *Excerpts from the Case Book.* By the Editor.

Case I. *Complete suppression of urine from contusion, and obliteration of the membranous part of the urethra—puncture of the bladder above the pubis—operation for the re-establishment of the urethra—cure.* Thomas Oliphant, aged 28, by trade a carpenter, was admitted into the Baltimore Infirmary, on the 24th of August, 1832, laboring under a total suppression of urine, which had existed about forty-eight hours. His bladder was distended into a large round tumour, which projected considerably above the symphisis pubis; his whole abdomen was extremely tender to the touch; his pulse frequent and small, and his skin covered with a cold clammy sweat. His whole aspect indicated extreme suffering, and his condition excited much apprehension for his safety.

The account furnished by himself of the origin of his disease was, that some weeks before, whilst engaged in his occupation, he slipt and fell from a height, astride of the edge of a plank, which struck him across the perineum, immediately in front of the anus, bruising the parts violently, and occasioning a temporary stoppage of his urine. From this latter he partially recovered in a few days, in proportion as the inflammation subsided; but although able to relieve his bladder, the urine did not flow freely, and he frequently experienced considerable difficulty in passing it. After the lapse of some time this difficulty increased, until it finally amounted to a complete suppression, to obtain relief from which, he entered the Infirmary in the condition already described, unsuccessful attempts having been previously made by his medical attendant to pass the catheter.

On passing an instrument down the urethra, I found the obstacle to be situated immediately behind the bulb, and in the membranous portion of the canal, where the parts seemed to be much indurated, and presented a solid point of resistance both to the instrument and the finger. This induration seemed to reach backwards to the extent of several lines. Various attempts were made to overcome the obstacle, but all of them were fruitless. The patient was then put in a warm bath and bled ad deliquum, after which the attempts to pass the catheter were renewed, but with no better success. Laudanum was administered in large doses both by the mouth and anus, but still the obstacle could not be surmounted. The patient was then left for a couple of hours, with the direction to keep the whole abdomen covered with warm anodyne fomentations, and to have a large anodyne enema. On my return, I renewed the efforts to introduce the catheter; but the obstacle was still as formidable and unyielding as before. The sufferings of the patient being extreme, and his danger hourly increasing, I determined to resort immediately to the puncture of the bladder; and as there was no trocar at hand by which the puncture could be made in perineo, I proceeded to perform the operation above the pubis, in the following manner:—A sharp pointed bistoury was thrust directly backwards into the bladder immediately above the symphisis pubis and upon the lower part of the linear alba. A female catheter was then conducted along the blade, through the opening, while the knife was withdrawn simultaneously. The urine was drawn off through the catheter, which was fixed in its situation by means of tapes attached to its eyes and passed round the body. The relief was immediate, and continued, the plug of the catheter being from time to time removed, to draw off the urine whenever it accumulated.

From this time the patient was left to quietude, and such treatment as was calculated to subdue the irritation excited by the disease and operation, until the third day, when every thing being favorable, renewed attempts were made to overcome the obstacle in the urethra. The ordinary methods having been perseveringly tried without effect, I determined to resort to an operation in perineo for the re-establishment of that passage.

The patient being placed in a convenient position, with his thighs flexed upon the pelvis, a silver catheter was passed down to the obstacle in the urethra, where it was held firmly by an

assistant, in such a manner as to make its extremity project a little in the perineum, in order that it might serve as a guide for the knife. An incision was then commenced upon the raphe of the perineum, immediately behind the bulb of the urethra, and conveyed backwards in the direction of that canal, as near as possible to the verge of the anus. The skin and integuments being thus divided, I dissected down cautiously upon the end of the catheter, to reach which, it was found necessary to divide a part of the bulb. This point gained, and the direction of the natural course of the passage thus ascertained, the dissection was cautiously continued backwards, through the indurated tract of the obliterated membranous portion of the urethra, with the object of reaching the open portion of the passage posterior to the obstacle. This was not accomplished until the anterior extremity of the prostrate gland was reached, where after some little impediment, the point of the catheter was insinuated into the canal and conveyed immediately into the bladder.

There was no vessel divided requiring a ligature, and after sponging the parts dry, the patient was put to bed, with his thighs placed close together, and the catheter properly fixed in his bladder by means of tapes and a bandage. On the second day after the operation, the silver catheter was withdrawn, and an elastic one introduced without difficulty. Only a small quantity of urine flowed through the wound, and the only subsequent attention requisite was, to change the instrument from time to time, whenever it became foul or obstructed.

The natural course of the urine being thus established, the female catheter which had been introduced above the pubis, was removed, and that aperture closed in two or three days. The wound in the perineum healed kindly, and the individual, after remaining in the house some time to ensure the permanent permability of the urethea, was discharged on the 28th of October, perfectly cured.

The cases in which it is necessary to puncture the bladder, for the relief of suppression of urine, are comparatively few, and the resources of modern surgery have so multiplied means of relief under such circumstances, that that operation is now seldom performed. In the present case, however, there was only one other resource;—the lancet pointed urethra stilette, and that under the circumstances, a considerable extent of the urethra being obliterated, could not have been used, except at considerable

hazard of its deviating from the natural route of the passage and not reaching the bladder, or at least, the posterior portion of the urethra. For the purpose of dilating a stricture of limited extent that instrument may be advantageously employed, yet it requires an accurate knowledge of the parts, and a practised hand. In all cases of extensive obliteration, the incision from the perineum is a much safer operation and should be preferred.

Case II. *Necrosis and Exostosis of the shaft of the os femoris succeeding a compound comminuted fracture—operation—cure.* Arthur O'Conner, aged 28, was admitted into the Charleston Alms House Hospital, on the 23d of January, 1830, to be treated for exostosis and necrosis of the femur. About three years before, in a fit of intoxication, he threw himself from the fourth story window of a house, upon the pavement, and received a compound comminuted fracture of the thigh. His recovery was protracted, and only took place after much suffering from profuse suppuration, and the discharge of several fragments of bone, some of them of considerable size. At the period of his admission, he was able to walk upon the affected limb, which was, however, considerably shorter than the other. The inner side of the thigh presented a considerable concavity, while the outer exhibited a still greater degree of convexity. This was partly owing to a curvature of the bone produced at the period at which the fracture united, but chiefly to a large exostosis developed upon its outer surface. This bony tumor was about four inches in length by two in breadth. It was broad, rugged, and expanded at its upper extremity, while below, it terminated in a pike of bone, which projected downwards, parallel with the shaft of the femur, and was separated about an inch and a half from it. There were two small fistulous openings corresponding to the situation of this exostosis, the one situated about three inches above the other. A probe introduced into either of these openings, communicated with a long narrow passage, which led directly through the middle of the bony tumor, to the central part of the shaft of the thigh bone. These fistula had been repeatedly healed, but were constantly reproduced in a short time. On the inner side, a similar opening had existed upon the inner part of the thigh, but at the period of the patient's admission, it was healed and covered with a scab.

From all the circumstances of the case it was apparent that a

cure could only be effected by removing the whole of the exostosis, and exposing the medullary cavity of the femur, so as to extricate the sequestrum, should any exist, as well as any portion of the bone that might be diseased. This I proceeded to on the 30th, assisted by my friend Dr. Thomas Aken, and in presence of the class of the medical college.

Having placed the patient upon the operating table, a longitudinal incision of about eight inches in length was made, commencing a little above the tumor, and ending about an inch below it. The two edges were then dissected laterally, so as to expose the whole extent of the diseased mass. I next proceeded, with a common amputating saw, to separate the bony tumor from the femur, by sawing in a longitudinal direction through its base, in front, and then dividing the remaining portion in the same manner from behind. A circular piece of bone, including the fistulous orifices, was afterwards removed by the trephine, and a bent probe passed into the medullary cavity. Using this as a guide, I proceeded to lay open the whole of that canal with the gouge and mallet, as far as the disease extended, taking care to remove every portion of necrosed or carious bone. No sequestrum was found at the time of the operation. The whole cavity was filled with dry lint, and the patient put to bed.

The operation was attended with great pain, and considerable fever followed. About the second day healthy suppuration took place in the edges of the wound, and on the eighth on examining with a probe, a loose piece of bone was discovered, occupying the medullary cavity. This was readily removed with a pair of forceps, and was found to consist of the sequestrum, rendered rough upon the surface by the action of the absorbents. It was about two inches in length, by an inch in breadth at its widest point. The same dressings were continued, and to allow the bone to exfoliate, which it continued to do for some time, the wound was kept open. Healthy granulations finally sprang up from the bottom, and the part healed kindly. The patient was discharged cured, and in the perfect possession of the use of his limb.

An error is not unfrequently committed in the treatment of necrosis, in trusting too much to the tardy process resorted to by nature to throw off the disease. It must be conceded that she is often competent, with very little assistance, to accomplish this object; yet it is equally true, that in confiding too much in her

powers, lives are not unfrequently lost, under the influence of protracted irritation. Chisseling away a considerable portion of the shaft of a bone with the gouge and mallet, I am aware has the appearance of a harsh operation. Experience, however, has proved its efficacy, and I am satisfied that it is infinitely better to resort to it, than to suffer an individual requiring such assistance, to drag out a miserable existence of months and years, harrassed by pain and suppuration, and worn down and exhausted by hectic fever.

Case III. *Necrosis of the three first metatarsal and the cuneiform bones—extirpation of them leaving the corresponding toes—cure.* A negro boy aged about 18, the property of the Messrs. Lowndes, was placed under my direction to be treated for a disease of his foot. The member was enormously enlarged, and the instep and inner border of the foot, presented several fistulous openings, through which a considerable quantity of ill-conditioned matter was discharged. On passing a probe into these openings, they were found to communicate with diseased bones in several directions. These I determined to remove. My first object was to extirpate the first metatarsal bone, which was found dead, and diseased throughout its whole extent. An incision was therefore made along the inner part of the foot, from the one extremity of the bone to the other, and the latter, all its attachments having been destroyed by disease, was easily removed, leaving the great toe and its proper flexor and extensor tendons entire. The second metatarsal bone was then found to be somewhat diseased, as well as the corresponding cuneiform bones, but as it was thought that the dead parts might be thrown off, the wound was filled with dry lint, and the foot properly dressed. After waiting for several weeks, without gaining much ground, and new fistulous openings forming upon the dorsum of the instep, which communicated with a considerable extent of the second and third metatarsal, and the three cuneiform bones, I next determined to remove the whole of them, taking care to preserve the corresponding toes, as I had done in the first operation. An incision was therefore extended in a longitudinal direction upon the dorsum of the instep, and upon the course of each of the metatarsal bones; the lips were drawn asunder, so as to expose the extensor tendons, which were drawn aside, and the bones were then disarticulated, first in front, then behind, and

dissected from their beds, leaving the toes with their tendons. This done, it only remained to remove the three cuneiform bones, which was easily accomplished, as they were so much diseased, that a considerable portion of them could be picked away in fragments. After a few days, healthy suppuration was established; healthy granulations sprang up; the tumefaction of the member subsided, and the wound finally healed up. The preservation of the toes was found highly advantageous to the individual in walking, which after the parts were healed, he was enabled to do with but a trifling impediment in his step.

It may be remarked, that this case had been pronounced upon as one requiring amputation of the leg,—an operation, which it is to be too much feared, is often resorted to on account of diseases of the tarsal or metatarsal bones, which might, in many instances, be relieved by a procedure which would secure to the individual the use of his foot, as in the present instance.

ART. IV. *Remarks on Fungus Hæmatodes, with a case.* By N. R. SMITH, M.D. Professor of Surgery, &c. in the University of Maryland.

I HAVE noticed in this formidable disease, one trait, which, so far as I know, has not been pointed out by authors, and that is, an occasional disposition to recede from its first locality and transfer itself to some other part—sometimes very remote from that first affected, which may then resume its healthy condition.

If my observation be correct, a very important principle, relative to this disease, is established viz: that the nutritive functions have a control over the morbid excrescence greater than has been supposed to exist. And if it be established that this power exists, it is obvious that we may hope to excite and direct it by remedies, so as frequently to effect the complete dispersion of the disease.

In 1829, I was consulted by my friend Dr. Howland, formerly of this city, in the case of a poor womon laboring under bleeding fungus, located in the vagina, upon the recto-vaginal septum. It exhibited strongly every trait of the disease. There existed an almost constant discharge of a sanious, and extremely fetid

fluid. Occasionally there was considerable hemorrhage, and sometimes lumps of soft medullary matter, involved in coagula, came away. These were always brought away in greater or less quantity when an examination was made with the finger, and then there also occurred hemorrhage.

Although a doubtful opinion was expressed in regard to the ultimate result of an operation, the patient was extremely desirous that the disease should be removed with the knife. The operation was accordingly performed, and it was found necessary to extirpate a considerable portion of the recto-vaginal septum, and vessels were divided which discharged a great deal of blood.

The patient soon recovered from the immediate effects of the operation; but after the lapse of a few weeks, the disease reappeared in the same parts. On this being ascertained, the case was considered hopeless, and only a palliative course of treatment was resorted to. The glands of the groin soon became affected and considerably enlarged.

After having witnessed this state of the disease, some time elapsed before I again saw the patient, and when at length I did again examine her, I found to my surprise that almost every trace of the disease had spontaneously disappeared from its original locality, and also from the glands of the groin. Several small tumors, however, had recently appeared in and around the mammæ, exhibiting all the characteristic marks of incipient fungus. They had an elastic pulpy feel, and were affected with but little irritation.

Again there occurred a considerable interval of time, and I once more examined the patient. The tumors situated upon the breasts had now totally disappeared, and disease had begun to manifest itself in the glands of the iliac region within the abdomen. In this last locality the disease continued to progress until it terminated in the death of the patient. A post-mortem was made and the disease was found to have involved the iliac glands on both sides, and to have extensively affected those of the mesentery. The disease was manifestly the medullary fungus. It should be stated, that before death, its ravages had recommenced in the vagina, and had extended to the uterus.

In a paper recently published in the Baltimore Medical and Surgical Journal, I have related a case in which I successfully treated what I confidently believe to have been the medullary fungus. The remedies employed were preparations of iodine

and mercury, generally and locally applied, with spare diet and repose.

I had at one time adopted the opinion of a distinguished friend, that the medullary fungus and schirrus were in their nature identical, only the one possessing more of the medullary and less of the fibrous constituent than the other. I am now convinced, however, by my own observation, that they are specifically different. In confirmation of this, is the fact, that true schirrus rarely if ever occurs in infants, whereas the medullary fungus is in them a disease of by no means unfrequent occurrence. It is also to be observed, that these diseases select different regions of the body, schirrus generally attacking glandular structures, the skin, or the mucous surfaces; while fungus manifests a partiality for the fibrous tissues.

Art. V. *Two cases of Anæmia.* By the Editor.

In the fourth number of the Baltimore Medical and Surgical Journal and Review, we offered some observations upon the pathology and treatment of anæmia, and endeavoured to point out some of its most striking peculiarities. That its existence depends upon a previous morbid condition of the solids, there can be but little doubt, and that it should be generally regarded rather as a symptom of pre-existing disease, than constituting a disease itself, we think is equally true. Yet, when the anæmic stage is once fully developed, that it excites symptoms which are peculiar to itself, and which call for a method of treatment somewhat special, we are fully satisfied from repeated observation. The general commotion of the vascular system; the violent throbbing of the vessels about the neck; the excessive palpitations of the heart; the hurried and embarrassed respiration; the frequent and *shattered pulse*, and in some instances, the intense heat of the skin, all of which are symptoms frequently observed to attend it, would seem, at first view, to call for blood letting, and the general employment of antiphlogistics. We have more than once seen them attacked by such remedies: we have seen repeated bleeding resorted to,—antimonials, cathartics, and mercurials diligently employed; yet with the constant effect of exasperating all the symptoms. Under the same circumstances, we have seen an opposite course pursued, con-

sisting of a combination of antiphlogistics, corroborants and alteratives, and although apparently incompatible with the general train of symptoms, they have all been speedily subdued under the use of these remedies, and health rapidly restored. But as these facts have been fully explained in the paper above referred to, we merely propose to offer here, two cases in illustration, which have fallen under our care since those remarks were published.

Case I. *Anæmia succeeding intermittent fever.* George Purse, seaman, aged 19, was admitted into the Baltimore Infirmary, August 5th, 1834. Has been sick two months, on the voyage from New Orleans to Baltimore. Has had a chill every day at 12 o'clock, which was constantly followed by fever. His abdomen is now very much swollen, and presents evidences of visceral enlargement with effusion of water. His tongue is very pale and slightly furred; his gums almost white, and his skin bloodless, pale, transparent, and of a waxen aspect. His pulse is full, frequent, and presents a peculiar thrill; his respiration short and hurried, and his fever almost constant; there being generally a chill every day at 12 o'clock.—Bowels rather costive; cups to the abdomen; Massa Pil. Hyd. Extract Alk. Jalap. Pulv. Rhei. ā ā gr. iij., ft. Pil. et cap. ter in die.

Aug. 6. Little or no change in his condition—cups repeated, and medicine continued.

Aug. 9. Blister to the abdomen, and medicines as before.

Aug. 10. No chill, but the fever and other symptoms not much mitigated. Blistered surface to be sprinkled with sulphate quinine, gr. x. three times a day, and skin sponged with cold water as long as it continues hot.

Aug. 13. No effect observed from the quinine.

Aug. 14. Fever somewhat less—Prussiat Ferri, gr. x. three times a day.—The alterative aperient pill at night.

Aug. 19. He had improved very much under the use of the prussiate of iron, but in consequence of imprudence in diet, the excitement has been renewed. Ol. Ricini ʒ ss.—Tinct. Digit. gutt. x. three times a day.—The iron only to be given at night.

Aug. 24. Much improved—Digitalis discontinued, and the iron to be administered three times a day—dose increased to gr. xv. Iodin. ʒ ss. Hydriodat. Pot. ʒ i. Unguent. Hyd. Fort. ʒ i. m. to be rubbed upon the abdomen daily.

Sept. 10. His improvement since the last date has been rapid

and steady. The bloom of health has returned to his cheeks, and he feels himself relieved of all his distressing symptoms. He still continued to take the iron in the form of the muriated tincture, as a substitute for the prussiate. *Reported by Mr. S. G. Baker.*

Case II. Charles Winn, seaman, aged 18, was admitted into the Baltimore Infirmary, July 30th, 1834. He was born in a malarious district of North Carolina, and from his earliest youth has been annually subject to intermittent fever, until two years previous to his admission, during which time he has led a seafaring life.

The whole body at the present time is exsanguined, more or less mottled, and of a pale waxen hue. His cheeks and ankles are œdematous; the abdomen tumid; adnata of the eye of a pearly lustre; lips, gums and tongue blanched, and the latter pointed; muscles flaccid; body emaciated; digestive powers partially impaired; respiration much disturbed, the least exercise occasioning hurried and oppressed breathing, and if continued producing speedy exhaustion. The heart palpitates violently even when lying at rest, and there is tumultuous throbbing of the carotids and other large vessels about the neck. The pulse is also frequent, and presents a peculiar *shattered thrill.* The liver and spleen are perhaps enlarged, but the effusion of water into the abdomen renders it difficult to decide by exploration. Massa. Pil. Hydrarg. gr. iij. Pulv. Soc. Aloes, gr. 1. Pulv. Ipecac. gr. ss. every night. Carb. Ferri, gr. x. three times a day. Generous diet with porter.

Aug. 10. The improvement of his general health has been steadily progressive. Tongue and lips slightly reddened—abdomen less tumid. The œdema of the cheeks and ankles has lessened—digestive function invigorated, and the evacuations more healthy.

Aug. 25. Still improving. Tinct. ferri muriatis substituted for the carbonate of iron. Alterative pills to be continued.

Sept. 11. All the prominent symptoms of the disease have yielded, in a great measure, to the treatment. Tongue and lips more colored; the tumefaction of the abdomen has entirely subsided, as has the œdema of the cheeks and ankles. The palpitations of the heart, and the excessive throbbing of the vessels are no longer perceptible. His pulse is regular and full, and he is able to bear considerable exercise without fatigue. *Reported by Mr. J. C. W. Wederstrandt.*

Art. VI. *Case of Intussusceptio.* By M. S. Baer, M.D., of Baltimore.

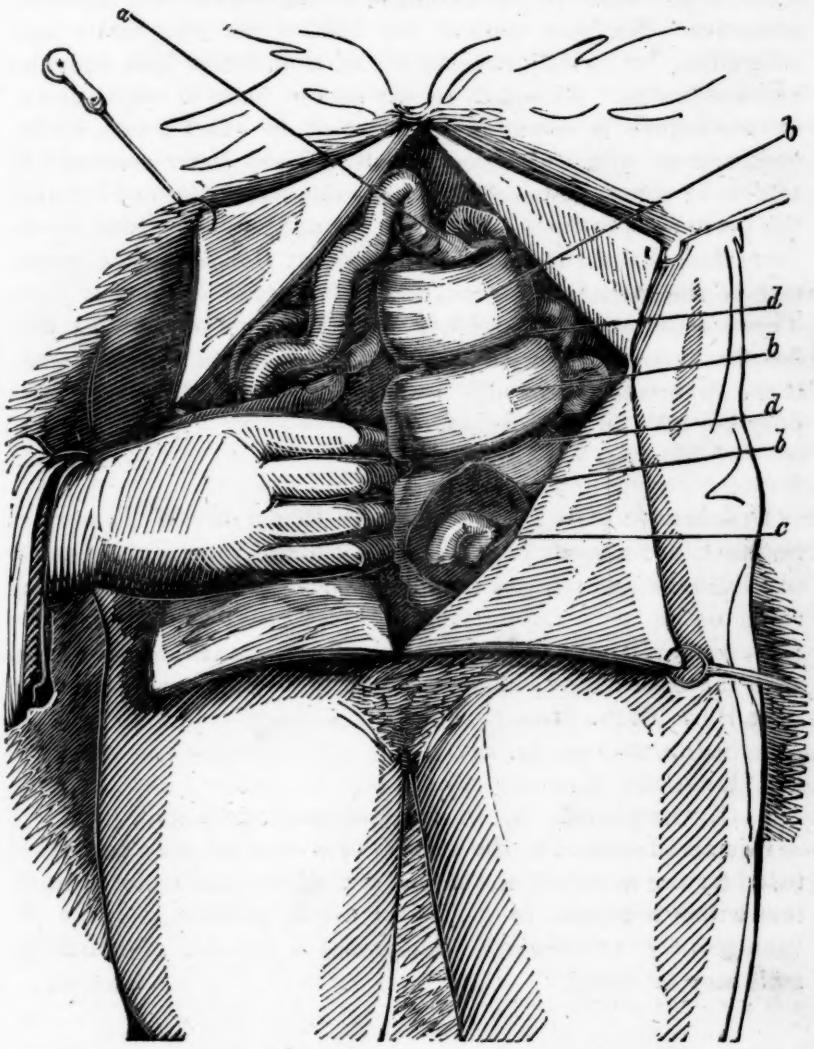
The daughter of Samuel Haoman, aged 16 months, was attacked on the 24th of August, 1834, with violent vomiting, incessant screaming, and a disposition to draw up the legs. I was unable to make a minute examination at the first visit, but the parents reported, that "the child's health had been rather indifferent, and that she had been affected with more or less diarrhœa." I directed small doses of calomel, and sinapisms to be applied to the abdomen.

25th. No improvement, except that there have been longer intervals of exemption from vomiting. She had passed a small watery evacuation, tinged with blood. Having an opportunity at this time, to make a careful exploration of the abdomen, I discovered a large tumor occupying the left iliac region, which I supposed to be the colon obstructed, and distended with foreign matter. To remove this, enemata were resorted to, but I was unable to throw them up on account of some obstruction. Anodyne fomentations were also applied to the abdomen. But the only effect of all the remedies was, to secure to the poor sufferer, longer intervals of repose. She died on the 26th.

Autopsy.—The body somewhat emaciated. The viscera were generally healthy, except the intestines, which presented points of inflammation throughout their whole extent, and were greatly distended with gas. On following the course of the ileum, I found that it terminated in a large tumor, which was situated perpendicularly in the left iliac region. On proceeding to remove this tumor, I found that a portion of the ileum had slipped into the cœcum, and was there incarcerated by the ileo-cœcal valve, and that an inversion had commenced at that point, taking in the cœcum, and ascending, transverse, and descending parts of the colon, as low as the sigmoid flexure. This latter portion of the gut was straightened, and greatly distended, and at several points, manifested a disposition to become inverted on itself. The incarcerated portion descended with the ileo-cœcal valve, to within two inches of the ducts.

Remarks.—I have asked myself this question:—can there possibly be any practical good derived from the publication of this case? It may, perhaps, be supposed that there cannot. In

such an opinion I am not altogether disposed to concur. Every pathological fact possesses a value, sufficient to entitle it to a



a Ileum above the commencement of the inversion.
b b b Prominences presented by the outer surface of the colon.
c The lower part of the rectum laid open, to show the inverted intestine.
d d The portions of the large intestine which shewed a disposition to become inverted.

careful examination; for although there are many organic lesions, which are entirely beyond the control of the resources of

art, it is not the less important that we should be acquainted with their character, in order that we may be enabled to make a just appreciation of the extent to which we can rely upon our remedies. Nor can cases of the kind of the one under consideration, be strictly considered as necessarily fatal under all circumstances. Although art can do but little to avert such an event, nature is sometimes competent to effect a cure by her spontaneous and unassisted efforts. Cases have occurred, in which, in consequence of a free adhesion having formed between the peritoneal surfaces which are brought in apposition by the inversion of the gut, and the subsequent sloughing and expulsion of the included portion, a complete cure has taken place. These considerations, together with the object of shewing how far the inversion can take place, and into what a small space these important organs may be compacted, have induced me to offer the case for publication.

Ointment to allay the Irritation of Hemorrhoidal Tumors.—So much suffering is experienced from the incessant irritation of hemorrhoidal tumors, that every means capable of affording relief under such circumstances, must prove acceptable to the profession. I have used an ointment similar to the following, with the most happy effects, and in a great number of cases:

℞ Pulv. Carb. Plumbi, ʒ ss.
Sulph. Morph. gr. xv.
Unguent. Stramon. ʒ i.
Ol. Olivar. qs. M. ft. unguent. part. applicand.

Powdered opium, to the amount of a drachm, may be substituted for the morphia, and if the dry white lead is not at hand, that which is ground in oil, for the use of painters, may be advantageously substituted. Sometimes a drachm of powdered galls may be added. EDITOR.

SELECTED PAPERS.

A Lecture by WILLIAM STOKES, M.D. *delivered at the Medical School, Park street, Dublin.—Session* 1833–34.

PAINTERS' COLIC.

THE disease is called painters' colic, from the circumstance of house-painters being extremely liable to it from coming into frequent contact with the poison of lead. Its synonyms are numerous, dry colic, saturnine colic, rachialgia metallica, Devonshire colic, &c. &c.

Painters' colic is an example of the effects of a metallic poison on the nervous system. There are certain metals which produce a powerful effect on the system, not by means of their corrosive properties or by any direct action on the surface to which they are applied, but by a peculiar impression made upon the nervous system. Thus we find that mercury under certain circumstances will give rise to a very singular nervous disease; arsenic may be introduced into the system in such a way as to produce symptoms of nervous lesion; copper exercises a similar morbid influence, and the effects of lead are universally known. I do not mean to say that all these metals produce similar effects on the economy, for this is not the case, but there is one point of agreement between them, that all may produce symptoms which are called nervous or neurotic, and the diseases thus produced are classed among the neurosis. What is the meaning of this term neurosis? *A lesion of nervous function, more or less complete, occurring independently of any demonstrable organic change.* A neurosis, then, is an alteration in the functions of the nerves of organic and animal life, the nature of which alteration we cannot understand, neither can it be demonstrated by the knife, nor by any examination of the state of the nervous tissue. In other words, a person will die with the symptoms of a neurosis, and when you come to examine the body, you will be unable to detect, in the minute ramifications of the nerves, the trunks, or the nervous centres, any appreciable lesion.

Diseases of this description have been divided into two classes,—active and passive neuroses. Active neuroses signify an increase or exaltation in the nervous function, passive neuroses are those in which there is a diminution of nervous energy; in both there is an absence of perceptible organic change. Take, for instance, an example from the nerves of animal life: a case of convulsions, independent of organic disease, is an example of the active neurosis; a case of paralysis, under similar cir-

cumstances, is an example of the passive. In the former, there is an exaltation of the nervous function, which is reflected upon the muscular system; in the latter, there is a diminution, producing a partial or total loss of the power of motion. It has been asserted by eminent physiologists, that passive neurosis can only exist in the organs of the life of relation, because the functions of the ganglionic system, which presides over organic life, cease only at the death of the individual. But there may be such a thing as semi-paralysis of the organs to which the ganglionic nerves are distributed, and hence we may have passive neuroses of the system of organic as well as of animal life. We get a good idea of these neurotic affections, by taking some of the most remarkable instances of this kind. Hydrophobia is a remarkable instance of excessive lesion of the nervous function without any known organic change; so is tetanus, and so are some forms of apoplexy, convulsions, and mania. Here we have violent irritations of the nervous system, in which there is no perceptible organic change, and where the only information we derive from pathological anatomy is of a negative character, telling us what these diseases are not, and leaving us, as to their actual nature, as much in the dark as ever. We find by dissection that hydrophobia and tetanus, and hysteria, and convulsions, and apoplexy, are not caused by inflammation of the brain or spinal marrow, and that is all. Hydrophobia, tetanus, convulsions, and hysteria, are instances of active neurosis; paralysis and apoplexy, without any known cerebral disease, are looked upon as examples of the passive kind, because they present either a diminution or abolition of the nervous function.

In the present state of medical science we must admit this division of the affections of the nervous system into diseases with and without perceptible organic lesion. I grant that it is very difficult, when we come to consider alterations in the functions of parts, to conceive how such changes could be effected without molecular alteration, or that the brain could be deranged in its functions, without some change of this kind. We are, however, compelled to consider such functional alterations of the nerves as changes with which we are unable to connect any process of hardening, or softening, or anomia, or congestion, or, in fact, any *known* pathological condition. Rostan is of opinion that all diseases are organic, that is to say, that they are produced by some molecular change, and this, he says, should be the basis of medicine. Unfortunately for medicine it has been given so many bases, that it sometimes knows not what leg to stand on.

But to return to our subject. Painters' colic is an example of a neurosis, that is to say, it is a lesion of the nervous function, unconnected with any known pathological alteration. It presents commonly two periods, the first exhibiting the phenomena of active, the second of passive, neurosis; or, in other words, the signs of exaltation of the nervous func-

tion precede those of depression. In the majority of cases, we find the first stage of this affection characterised by violent spasm, pain and convulsions, symptoms indicative of active nervous lesion, whereas in the second stage we have paralysis, the diagnostic mark of the passive kind. This is the order in which the phenomena of painters' colic are generally met with, but in some cases the first stage is either very imperfectly shadowed out, or even entirely wanting; the paralysis comes on in an insiduous manner, and without being ushered in by any symptoms of exaltation of the nervous function.

In this country the most common victims to this disease are painters, who are much in the habit of working in white lead, and when you are connected with the management of any public medical institution (as I hope you will all be,) you will often have to treat cases of this description. In Dublin and all large cities, it is an exceedingly common affection, and the patients are for the most part house-painters. Next to these, the persons who are most subject to it are plumbers, and those who are employed in the melting of lead.

When the poisonous particles of lead enter the system in a highly volatilized state, its morbid effects are more certain and extensive. Every house painter will tell you that the kind of work which is most likely to produce a deleterious effect, is painting "the *dead white*," or, as it has been termed, *statuary white*. In doing this they use white lead combined with a large proportion of oil of turpentine, and, in order to produce the intended effect, they are in the habit of excluding the air as much as possible. By means of the turpentine and the warm temperature of a close room, the lead is volatilized, and in this state appears to have an extraordinary power of impregnating the system. Some of the very worst cases of painters' colic are produced in this way. Painting in the open air, even where the same preparation is employed, is comparatively harmless. A poor fellow, who was for a considerable time under my care, assured me that he had escaped for twenty years, and was convinced that he would have enjoyed a much longer immunity, had he not been put to work at the statuary white in a close room.

With respect to plumbers, it is now ascertained that this disease is of comparatively rare occurrence among them, and the reason of this is that they generally work in the open air, or in well ventilated apartments, and have now but little to do with the actual manufacture of lead. The kind of lead which they generally use, sheet and pipe lead, is furnished from the manufactories, and their occupation principally consists in the moulding and soldering of it. We very seldom now see a plumber laboring under colic.

Painters' colic may be observed under a great variety of forms, but for the convenience of studying the disease, we may divide these varieties into four classes. In the first we have the phenomena of simple colic,

without any obvious or marked symptoms of bilious, gastric, or cerebral derangement. In the second variety, the disease assumes a more decided character; the colic is complicated with symptoms of fever of a gastric character, the pain in the belly is more acute, the constipation more obstinate, there is pain and difficulty in going to stool, nausea and vomiting, with occasional headache, dyspnœa, and sense of constriction about the præcordia, the belly is hard and retracted, and there is often pain in passing urine. In the third variety we have a more formidable array of symptoms. The functions of the brain and spinal marrow are deranged, there are wandering pains in the extremities, and the patient has frequent attacks of violent convulsions, resembling those of epilepsy. He also labors under the abdominal symptoms, but in this stage they are not so well marked, or so distinct as in the former; the lesions of the functions of the cerebro-spinal system begin now to exhibit a greater degree of preponderance, and claim the principal share of the attention of a symptomatologist. In the fourth variety there is paralysis, without being preceded by the ordinary symptoms of abdominal or cerebral derangement. A medical friend of mine met with a case of this kind not long since. He was called to visit a child who had lost the use of his limbs. He went and found the child lying in bed perfectly quiet and easy, his intellect sound, and his spirits good, but laboring under complete paralysis of all his limbs. He inquired minutely into the history of the case, and made a most scrutinizing examination, but from all he could see or learn, there was not the slightest ground to suspect disease of the brain or spinal cord. There had never been any symptoms of colic. He was puzzled with the case, and tried one thing after another without benefit. At length he found out that the child's father was a painter by trade, and this led him to suspect that the symptoms might have some connexion with the poison of lead. He inquired, and was told by the mother, that a quantity of white paint had latterly been kept in the room, and that it was impossible to keep the child from it. He instantly had the paint removed, a free current of air admitted into the room, and by the use of purgatives, assisted by stimulating frictions, the child recovered.

The following is the order of symptoms generally observed in this disease. First, we have the precursory, denoted by pain and sensation of weight about the epigastrium, a weak, small pulse, general languor and weakness of the muscular system, want of appetite, cold, clammy skin, a tremulous and coated tongue. At this period there is sometimes diarrhœa. Then comes some exciting cause, exposure to cold or wet, excess in eating or drinking, and the disease sets in with more or less intensity. The patient is attacked with dreadful pain in the belly, which differs from the pain of inflammation in this, that, so far from being increased by pressure, it is in most cases relieved. In fact, so decided is the relief produced in this way, that there is a case on record in which the patient

used to get the greatest ease by making one of his fellow-workmen stand upon his belly. This relief from pressure is very generally observed in colicky affections. Indeed, so general is it, that you will hear it frequently stated, that all cases of colic are relieved by pressure. This, however, is not invariably true; for I have seen cases where the patients could not bear pressure, and were it required a careful examination to distinguish the symptoms from those of inflammation. The pain is of a twisting kind, and felt about the umbilicus; and, in connexion with this, there is scanty urine, with more or less pain in passing it, obstinate constipation, and a tense, hard, retracted state of the belly, from the violent contraction of its muscles. The upper portion of the belly is sometimes more retracted than the lower, and the pulsations of the abdominal aorta are unusually distinct. The pain remits, and then becomes exacerbated, and the patient's countenance is expressive of acute suffering. In that form of the disease, where there is a complication of gastric or bilious symptoms, the patient has a semi-jaundiced look, a hot, moist skin, quick pulse, foul tongue, vomiting, hiccup, thirst, and epigastric tenderness.

In the third form, the chief force of the poison seems to be directed against the brain and spinal cold. There is vertigo, headach, stupor, and sometimes delirium; the patient has fits resembling those of epilepsy, but of longer duration, and violent convulsions, which sometimes continue with unabated intensity for twelve or even twenty-four hours. You will see those unfortunate creatures rolling and twisting in every form, sometimes doubled forwards, sometimes in a state of perfect episthotonos, sometimes moving their limbs with the convulsive action of an epileptic, and foaming at the mouth. In addition to this, it is stated in the descriptions of this disease, that the patient loses his sight and becomes amaurotic; this I can confirm, for I have seen it more than once. It is a curious fact, too, that this blindness may come on before the other cerebral symptoms are developed. I recollect a case in which one of the first symptoms was blindness. The patient happened one evening to be indulging himself in whiskey punch, and was in a fair way of getting comfortably drunk, when, unfortunately, he found that all of a sudden he could see neither single nor double. He groped about in a very disconsolate state for his glass, but not finding it, and finding at the same time that he had lost his sight, he came to the hospital next morning, and shortly after his admission had a violent attack of convulsions. In cases of this kind I have generally found the pupils contracted. The patients toss about in bed, and are frequently found lying with their heads turned towards the foot of the bed. In some cases the breathing has been stertorous for a length of time, and the head fixed, but the fingers and hands were flexible. I have seen cases in which the coma disappeared, and was followed by perfect blindness, lasting for two or three days, and then yielding to treatment.

These symptoms, striking and extraordinary as they are, do not seem to depend on the same state of the brain as cases of other diseases which are accompanied by sanguineous determination to that organ. The reason I make this assertion is, that many of the most violent nervous symptoms, including profound coma, subside under the use of a stimulant treatment. I think we may look upon these symptoms as similar to what are termed the symptoms of the *nervous apoplexy* of the ancients. A case of this kind, which occurred in the Meath Hospital, is deserving of notice from the singular effect produced by treatment. The patient was in a state of profound coma, but the head was cool, and the arteries had no inordinate pulsation. If this was a case which presented the other symptoms of apoplexy, I would have prescribed bleeding, leeches, and cold applications. But I reasoned thus—Here is a case in which there is no evidence of the existence of inflammatory action. Opium has been found to relieve the abdominal symptoms of the disease;—may it not also relieve the cerebral? I ordered the patient to have a free dose of laudanum in camphor mixture. In a few hours he awoke, sat up in his bed, and next morning we found the symptoms of coma had completely disappeared. In two other cases of a similar kind, I have given opium and carbonate of ammonia with the most favorable result.

Dr. Clutterbuck mentions a peculiar symptom of this disease,—a kind of gouty inflammation attacking the great toe and followed by relief. I have not seen this. He states that the first joint of the great toe becomes red, hot, painful, and swollen, and that this remits by day and returns again at night. I have never seen this, nor have I ever seen those hard tubercles on the tendons in various parts of the body, which some authors have described.

After these symptoms we come to a new class, namely, the passive, characterised by paralysis of the muscles of animal life. It is remarkable that this paralysis seems to be principally a paralysis of motion, and that the power of sensation is seldom or never impaired. Generally speaking, the upper are more subject to paralysis than the lower extremities, and the right than the left arm. The latter circumstance is explained by assuming that the direct influence of the poison is more applied to the right arm. The paralysis of the arm is also frequently partial; the extensors lose their power, but the flexors do not in so great a degree. You will see a patient with his arm hanging by his side as if it were dead, but if you give him any thing to hold he can grasp it firmly. I have known painters continuing to work with a semi-paralysed arm. There is also an atrophied condition of the affected part, and this sometimes comes on with such rapidity, that, in the space of a week or ten days, the affected limb will be scarcely half as bulky as the corresponding one. We cannot account for this remarkable emaciation on the principle of loss of motion alone, for the short space of time in which it

occurs in many instances is opposed to our entertaining such an opinion, and we must look for some other explanation. On this point science affords us no satisfactory information.

This disease, notwithstanding all its terrible array of symptoms, is very seldom fatal. Hence the uncertainty which long prevailed as to its pathological nature. In the great majority of cases, where a dissection was made, the patients died of some other disease, which either occurred during its course, or had preceded it. All that appears to be established at present is, that there is no known organic change of the nervous system connected with this disease, that it occurs in all its forms without the co-existence of organic lesion, and that its exciting cause is the poison of lead.

It was formerly supposed that all the preparations of lead, whether applied externally or used internally, were capable of producing colic, but this doctrine is at present considered very questionable. It was thought that metallic lead and all its salts were capable of causing the disease, but the morbid influence of this metal is now restricted by the best chemists and pathologists chiefly to its carbonate. This opinion I believe was first put forward by Dr. A. T. Thomson, the author of the London Dispensatory, in an interesting paper published by him in the tenth volume of the Medico-Chirurgical Transactions. The object of this paper is to prove that, of all the preparations of lead employed in pharmaceutical and other purposes, the carbonate is that which is chiefly poisonous, and that the acetate and sub-acetate are comparatively harmless.

You have all, I am convinced, heard of cases of colic produced by the external use of the acetate of lead, and you will see some cases in proof of this opinion in Darwin's Zoonomia and other writings. There is a case on record of a woman, who having poulticed her ankle with this preparation, for the cure of a sprain, got colic and fell into a state of marasmus. I know of a deplorable case of burn affecting the abdominal integuments, which was treated with a solution of the acetate of lead. After using it for a fortnight or more, symptoms of colic came on, which not being recognised the lead wash was continued, and the woman died in great agony. Dr. Thomson explains all this in a very satisfactory way. He shows that the solution of acetate of lead, when exposed to the air, attracts a quantity of carbonic acid, and is thus converted into a carbonate; of this I have very little doubt, for you will find that, by exposing a solution of the acetate of lead to the full influence of the air, the carbonate will be gradually deposited in the shape of a white powder. In the same way we can understand why it is that a solution of the acetate of lead, added to fermenting poultices, may be converted into a carbonate by the carbonic acid which is evolved. It is also a fact, that the acetate can be used internally for a long time without producing any

thing like deleterious effects. I have given it for weeks together in full doses without its having been ever followed by colic, or any symptoms characteristic of the absorption of a poisonous matter. There are cases on record where as much as six drachms of this salt have been taken internally without producing any sensible morbid effect. As far as my experience goes, all those cases, in which the medical use of the acetate of lead has been attended with disagreeable symptoms, were cases in which it had been used as an external application. There were two cases in the Meath Hospital in which this medicine was used externally, in which colic and other indications of poisonous absorption took place, but not a single one in which its internal employment had been injurious. An excellent practical rule is laid down by Dr. Thomson, that, where you wish to employ the acetate of lead internally, you should take care to combine it with diluted acetic acid. Of the two combinations of lead with acetic acid, the sub-acetate is most liable to be decomposed and converted into a carbonate, so that, if you prevent this by mixing with the sub-acetate, or acetate, a certain quantity of distilled vinegar, there will be little or no chance of unpleasant symptoms being produced, even where the medicine is given in very considerable doses. We are, therefore, I think, justified in concluding that it is the carbonate of lead which is productive of poisonous effects, and that where bad symptoms have resulted from the use of the acetate, it was in consequence of its being converted into a carbonate. I must, however, remark, that it has not been sufficiently proved as yet that the use of the acetate is *perfectly safe*.

It is an interesting fact, that many of the lower classes of animals are subject to this disease. Burserius was one of the first authors who directed the attention of medical men to this singular occurrence. I have got from my father an abstract of some observations made by him on this subject, during a visit to the lead hills in Scotland. He found that in the pastures among these hills, and in their immediate vicinity, cows, horses, sheep, dogs, and even poultry, were subject to colic from lead. The symptoms, also, in these animals were observed by him to bear a very close analogy to those of the human subject. Thus, for instance, in cows there was obstinate constipation with suppression of urine, the poor animals seemed to suffer from violent twisting pain of the belly, and sometimes were thrown into a state of furious excitement, running wildly across the country. He learned also that during that period it was calculated that at least one-tenth of the cows in this situation had died of the effects of the poisonous absorption of lead. One of the most ordinary precursory symptoms was the animal becoming what is called hide-bound, this was followed by obstinate costiveness, and there was much apparent suffering, with panting, starting, and slavering from the mouth. Where the cerebral symptoms were most prominent, the signs of abdo-

minal irritation were by no means distinct, and this, as I have remarked, is the case in the human subject. In some, who had the head affected and ran wildly through the country, the secretion of milk was stopped, and this accords too with the effect of lead on the human female. Another remarkable circumstance is, that animals, living in the vicinity of these lead hills, have exceedingly difficult labors. Sheep are subject to epileptic convulsions and paralysis; dogs have the head principally affected, they run across the country slavering at the mouth, as if in a state of hydrophobia, but they do not bite, and are in all respects perfectly harmless. In barn-door fowl the generative function was injured, and the hens reared or brought there ceased to lay eggs.

There is one fact mentioned in these observations, which tends to confirm the opinion of Dr. A. T. Thomson, that the poisonous effects of lead are produced chiefly by the carbonate. A distance of very few miles from the valley renders animals quite free from any liability to the disease, but if they should happen to stray into the immediate neighborhood, and particularly into a portion of low ground, flooded during the winter months by a river, which runs along the valley from the mines, and which, in all probability, leaves behind an efflorescence of the carbonate of lead, they are very liable to be affected with colic. It is said, also, that the poison is produced by the volatilization of lead in the smelting houses, the vapors of which are carried down the valley and through the neighboring parts. Be this as it may, the Gaelic name of the valley signifies the *poisonous vale*, and, as it is very probable that this name had been given in consequence of the deleterious qualities of the place long before the establishment of lead works, it tends strongly to favor the opinion that it is the water which contains the poison.

The mode of cure employed by the shepherds in this place is to give strong purgative injections, and remove the cattle from the influence of the poison, by sending them to new and healthy pastures. In this way they frequently recover, and if we look to the cause of the disease, its symptoms, or mode of cure, we shall observe a striking analogy between it and the colic from lead in the human subject.

You will recollect that I introduced the subject by stating that painters' colic belonged to the class *neuroses*, and that I endeavored to show that this implied a lesion of function of any part or viscus of the body, frequently characterized by the most decided departure from the natural condition, and yet unaccompanied by perceptible organic change. I said also, that it was hard to suppose the existence of great functional alteration, *without any molecular change;* but that, in the present state of science, we are compelled, for want of a better term, to call these affections *neuroses*, in contradistinction to diseases in which there is organic lesion visible. To illustrate this point, take an example from two different cases. In one case of what is called *dyspepsia*, we have inflamma-

tory, or, at least, sub-inflammatory derangement of the stomach: here the disease is traceable to organic change; in another case we have symptoms of nearly the same character, and yet there is no organic lesion. Painters' colic comes under the latter head; we observe symptoms of excessive functional lesion, but dissection does not exhibit any organic change. Pathological anatomy tells us what it is not, and we arrive merely at a negative knowledge of its nature. We have decided proofs of extraordinary lesions of the nervous system, and yet, when we come to the post mortem examination, we cannot find any visible change to account for these striking phenomena.

The old pathologists maintained, that spasm of the intestines was the principal cause of the disease, and attributed the symptoms to their contraction. This opinion appears to have some foundation, when we consider the violent symptoms of colic which accompany this affection. Dubois de Rochfort has mentioned, that in such cases he has found intussusception of the intestines. De Hean says, that contractions of the colon are very common; and several authors make the same assertion. The results of more modern observation, however, are against these opinions. I have told you already, that, in consequence of this disease seldom or never proving fatal, there is a degree of doubt attached to its pathology; but it is an interesting fact, that where death, from other causes, has occurred during the existence of painters' colic, the digestive tube has been found either in its healthy state, or with a few detached spots of vascularity, without any decided inflammatory character, and totally insufficient to account for the symptoms. This, which is all that pathological anatomy reveals, may be considered as purely accidental, and only of occasional occurrence, so that we are compelled to look upon the disease as one in which there is great lesion of function without any organic alteration.

In the hospital of La Charité, at Paris, a vast number of cases of painters' colic have been treated. In the space of eight years, five hundred cases of this description have been admitted; out of these, five died while laboring under the disease; and the following is an abstract of the appearances observed on dissection. In the first case, there was rupture of an aneurism of the abdominal aorta, and the patient sank from loss of blood. On examination, the digestive tube was found in the natural and healthy condition—there was neither *vascularity nor contractions.* The subject of the second case died of apoplexy. The whole intestinal canal was found healthy, and, contrary to the doctrines of the school of Broussais, there was neither congestion nor vascularity.

(To be continued.)

REVIEW.

Admonere voluimus, non mordere.——
Sunt bona; sunt quædam mediocria, sunt mala plura.

De Morbo Pulmonum organico ex Respiratione Neonatorum Imperfecta Orto. Auctore EDUARDO JOERG, Philos. Medic. et Chirurg. Doct. pp. 59. Lipsiæ, 1832.

On a Disease of the Lungs, which arises from the imperfect respiration of new born infants. By EDWARD JOERG, Doctor of Philosophy, Medicine and Surgery, &c.

THE subject of this small brochure, is one of great interest. The remarkable and sudden changes which the lungs of the child undergo at birth, necessarily alter the character of their relations with the whole infantile organization; and in taking upon themselves, suddenly, the performance of a function, so important and indispensable as that of respiration, they are acted upon by influences, and exposed to the impression of causes, to which, until then, they have been totally unaccustomed. Upon the readiness with which they accommodate themselves to these new relations, depend the safety and well-being of the new individual, and where any circumstance transpires to interfere with the regular series of changes which must take place under such circumstances, disease, and even death, must be the inevitable consequence. Dr. Joerg seems to have investigated the changes which take place at this period with considerable attention, and in the small treatise before us, he has offered an interesting exposition of a peculiar disease of the lungs of new-born infants, which he conceives to depend upon the imperfect development of the function of respiration at the period of birth.

To enable our readers to understand the drift of some of his arguments, it will be necessary to premise, that he denies the existence of any direct continuity, by vessels, between the maternal and fœtal placentas. Their minute radicles, he supposes, interlace with each other,—one from the fœtal placenta being received as it were between two of that of mother, the fluids passing from the one set of vessels into the other, through the porosities of their delicate tunics. The placenta, he supposes, performs for the blood of the fœtus, the same office that the lungs do for that of the adult. The fœtal blood is returned to this organ, deprived of oxygen, and loaded with carbon; but in consequence of a play of chemical affinities, it attracts oxygen from the blood of the

mother, and imparts to it carbonic acid gas, so that a continuous respiratory process is here carried on, precisely similar to that which is accomplished in the lungs. These changes, however, only continue for a certain time. All animals as well as plants, have a definite period of growth, which completed, they fall into a state of decay. Hence the growth of fœtus, obedient to this law, only consumes a period of about ten lunar months, towards the end of which time, the nature of its connexion with the mother undergoes important modifications. The placenta, umbilical cord, and the membranes, destitute as they are of nerves, cannot sustain their existence beyond that term. Towards the tenth month, therefore, they begin to atrophy; their communication with the uterus is gradually interrupted; they irritate that organ like a foreign body, and excite it to vigorous contractions, by which the new being and all its appendages are expelled. The manner in which this expulsion is accomplished, or at least the time consumed in the process, he considers a matter of great moment, and attempts to prove, what to many may appear a paradox, that the safety of the child depends upon the labor not being quick and easy, but upon its being sufficiently protracted, to allow time for its dependence upon the placenta to be sufficiently broken up, to make it feel forcibly the necessity for pulmonary respiration, in order that, impelled by its organic instincts, it may make a greater effort to expand the chest, and thus secure the full distension of the lungs.

Having premised some general remarks on the physiology of the fœtus, and the objects of labor, the author next proceeds to the description of the disease which is the subject of his treatise. If we understand him rightly, it is a species of induration, or condensation of the pulmonary tissue, which, he says, consists in "*a concretion of the air cells affecting more or less of the left or right lung, or both at the same time.*" "These cells," he subjoins, "without any preceding inflammation, exudation, or destruction, but merely in consequence of the defect of respiration, and the air not penetrating and distending them, become gradually impervious, and finally coalesce completely. The part of the organ thus affected, is higher colored and firmer than is natural to the fœtal lung, and cannot be inflated by any force, although air can be made to permuate a healthy portion of the same organ with great facility. A portion of the diseased lung of a fœtus which has lived for several days, or even weeks, laboring under this affection, still retains the same character, even when macerated and dissected in water." p. 7.

The causes of the disease are of two kinds:—1st, a too easy or quick delivery; 2nd, too violent compression of the brain of the child, whether it proceed from the preternatural force of the uterine contractions, a contracted pelvis, or the violent pressure of instruments. In reference to the first cause, it is remarked, that when the delivery of the child is too much hastened, it is not sufficiently deprived of its supply of oxygen

from the placenta, to make it feel forcibly the want of that fluid, and to call forth the instinct of respiration which constitutes the indispensable condition of its future existence. Hence, not being impelled by this want, when thrown upon its own resources, no active effort is made to expand the chest, and inflate the lungs. An imperfect respiration is all that is accomplished, the air only penetrating a portion of the cells of the organ, while a considerable number of them are not reached by it, and consequently remain collapsed, and subsequently coalesce, or become impervious. To obviate these difficulties, the labor should be sufficiently protracted to allow time for the dependence of the fœtus upon the placental respiration to become so far weakened, that urged by its want of oxygen, which it can now no longer receive in sufficient quantity from that source, it may be compelled to undergo those changes preparatory to the establishment of pulmonary respiration, so that when fairly thrown upon its own resources, it may make a full and powerful effort to expand the chest, fully inflate the lungs with air, and secure the free circulation of the blood through them.

The same condition of the lungs may be induced by compression of the brain, or excessive distension of the spinal marrow during delivery. The tendency of such compression, or stretching of the chord will be, to produce a state of asphyxia, or a general depression of the vital powers. Under such circumstances, the lungs participate in the general paralysis or sluggishness of the other organs, and are incapable of responding fully to the first effort at respiration which is made. The chest, therefore, the motions of which are also under the influence of the nervous centres, will be imperfectly expanded; the lungs, as in the preceding case, will not be fully inflated, and those cells which the air does not penetrate, will remain in a collapsed state, and finally become impervious.

The author remarks, that although these different causes produce the same disease, there is some difference observed between those children, in whom it is induced by a delivery too much accelerated, and those in whom it proceeds from compression of the brain, or injury of the spinal marrow. The first he has never seen asphyxied—but such children, although large and well formed, are feeble, and nearly motionless: their limbs hang pendulous, like those of an individual who is fatigued: their voice is weak and fretful; the respiration is imperfect; the actions of the chest are confined, and they frequently lay with their eyes half open. When plunged into a bath, they seem to be a little invigorated, but the respiration is still oppressed, and the inspirations short and superficial, like those of an individual affected with asthma, or hydrothorax.

Those children, who during labor, sustain much injury of the head or other parts of the body, and present large tumors or bruises of the scalp, redness or lividity of the surface of the body, or other marks of violence, are frequently asphyxied, and are very generally languid and infirm. They

seem to be threatened with inevitable death, yet in some cases, after vacilating for an hour, the thorax and lips begin to move, and furnish signs of returning life. Some of them gradually improve, and become healthy;—others become more depressed, and respiration being imperfectly performed, fall off rapidly. Owing to this latter cause, their cry is feeble and whining: the eyes are for the most part closed, and with difficulty opened, and the extremities are either paralytic, or capable of very imperfect motion. The duration of these symptoms is longer in proportion as the case is more dangerous. When they proceed from compression of the brain, or injury of the spinal marrow, active stimulants, though apparently indicated, are apt to excite violent congestions of the brain, or even apoplexy. In this manner, the difficulty of the respiration may be perpetuated, although the compression of the brain no longer exists.

After the lapse of some hours, other symptoms are sometimes observed. With the exception of its debility, the infant seems to be doing well, and takes the breast. In some, more or less lividity exists about the mouth, and bluish or livid spots are frequently disseminated over different parts of the body. About the second or third day, rarely later, spasms of the muscles of the face, and sometimes of the extremities ensue; the skin becomes pale and is covered with a cold sweat; the mouth and eyes are half open; the hues of the skin interchange rapidly, being at one moment pale, and the next red or livid; the child cannot nurse, and loses its power of deglutition. Its cry is either extinct, or its voice is feeble, whining, and hoarse—sometimes there is a slight *rale*, or perhaps a trifling cough. The head is drawn backwards and the pupils are slightly dilated, both eyes ranging in the same direction. These symptoms, the author remarks, although urgent, yield readily to proper treatment, and he subjoins, that he had never known the child to die in the first paroxysm. Should the disease take a favorable change, the convulsions abate or cease; the skin becomes warm; the eyes are opened and closed; the neck assumes its natural direction; the *rale* either disappears or becomes slight, and the child regains the power of sucking; but the debility still continues to be very great. In short, if the disease be submitted to appropriate treatment, its most urgent symptoms are mitigated, and the subsequent paroxysms are rendered much milder, and of shorter duration.

Much apprehension may be entertained, on the other hand, if during the first paroxysm, the child should be affected with great debility; if the voice is whining, and loses its roughness, and if the child sleeps with its eyes and mouth half open. Sometimes, even during the remissions, the muscles of the face, eyes and extremities are affected with slight spasms. Difficulty of deglutition exists in bad cases, and the bowels are generally constipated,—seldom preternaturally open. The skin is pale and cold, and frequently livid, this latter suffusion being in general, of very tran-

sient duration. The *rale* increasing in intensity, and attended with an accumulation of mucus in the bronchia, are highly unfavorable symptoms, as they threaten the approach of death by a kind of suffocative catarrh. Life seems in many instances to be destroyed by apoplexy, or suffocation. As the disease advances, the respiration intermits; the convulsions disappear; the livid hue of the surface of the body becomes more conspicuous; the eye balls are rolled upwards, scarcely shewing the pupils, and after each intermission of the respiration, which sometimes continues for a minute or more, the lungs labor, and the inspirations are strong and moaning. The debility increases with each exacerbation, and all the above symptoms become more and more formidable. The powers of sucking and deglutition become gradually extinct, and all the organic functions are so feebly performed, that they seem to be almost suspended. The defect of nutrition, and the collapsed state of the skin, impart to the child a shrivelled or wrinkled appearance. When the condition of the infant is thus unfavorable in the intermission, it generally dies in the next paroxysm, either in a state of apoplexy, or by suffocation, and seldom survives the second or third. The paroxysms at first, only take place daily, but as the disease advances, several occur on the same day, and towards the last, even as often as every two hours. Sometimes indeed, towards the close of the disease, the remissions and exacerbations succeed each other so rapidly, that it is almost impossible to distinguish any interval between them.

This is a brief outline of the description of the disease furnished by the author. He next proceeds to the consideration of some of its most frequent terminations or consequences. Its termination in health and in death, have already been alluded to; but besides these, it may give rise to the following diseases. 1. *Obstruction* or *hepatization* of the lungs. 2. *Chronic cyanosis.* 3. Apoplexy. 4. Suffocative *catarrh.* 5. *Fever;* and 6. *Atrophy.*

This affection of the lungs of new born children, Dr. Joerg thinks, may, like other acute diseases, assume a chronic form, and give rise to considerable changes of structure in the pulmonary tissue, which cannot be removed, except with great difficulty. These changes consist in the development of more or less induration of the substance of the lungs, by which they are rendered impermeable to the air, and respiration has to be performed by the portions of the organ which have escaped the disease. Hence, when this consolidation and obliteration of the air cells exist, the intensity of the sufferings of the infant, and the embarrassment of its respiration, will be in a ratio with the extent of the lungs which may be affected. Where the disease only occupies a limited extent of the organ, as in the milder cases, the child may appear to enjoy good health, and may even live to a good old age; yet such children generally present some symptoms of disturbance in the function of respiration, which are liable to be increased by the slightest causes.

The same causes which the author has assigned, as the principal source of the imperfect development of the respiratory function at birth, he thinks, may not only give rise to the condensation of the lungs, but through the instrumentality of this latter condition, to the development of a state of cyanosis. Thus the rapid delivery of the child, the compression of the brain, or the injury of the spinal marrow, may, as already explained, so far enfeeble the first inspiratory efforts, that they cannot produce a full distension of the lungs. A large proportion of the air cells will, therefore, remain empty and collapsed, and the blood being unable to take its new route from the right side of the heart through the lungs, a large proportion of it will continue to be transmitted through the foramen ovale into the left auricle, and from the pulmonary artery, through the ductus arteriosus, into the aorta, thus preventing these openings from becoming closed, and circulating black undecarbonized blood through the whole system. In this manner then, the obstruction of the lungs, by preventing the blood from flowing through their vessels, renders it impossible for the foramen ovale and ductus arteriosus to become obliterated, and as they are thus kept permanently open, a state of cyanosis becomes associated with the condensation or induration of the lungs. The black undecarbonized blood, moreover, while it gives rise to the livid hues so generally presented by children who are affected with this disease, enfeebles or paralyses the whole of the functions, and renders the organs incapable of acting with sufficient energy, to preserve the integrity of the vital powers.

In a similar manner, he conceives apoplexy, or determinations of blood to the brain, may be induced, which by disturbing the action of that organ, and the nervous system generally, not unfrequently destroy the life of the child immediately, or entail upon it a train of sufferings, which sooner or later prove fatal.

Another frequent consequence of this disease of the lungs is, the development of suffocative catarrh, or asthma. The solidification of a portion of the lung, tending as it does to prevent a free ingress of air into the bronchial cells, necessarily calls forth more violent inspiratory efforts, so that those bronchial tubes and cells which are pervious, as well as the trachea itself, is submitted to a constant source of irritation. This provokes a copious secretion of mucus from the delicate lining membrane of the air passages, which accumulates in them to such an extent, as to embarrass still further the function of respiration, and finally destroy the patient by suffocation. Under such circumstances, the difficulties of the case are still further increased, by the increased obstacle which is in this manner set up in the lungs, against the free transmission of the blood through their vessels, which occasions an accumulation of it within the heart, and a consequent embarrassment of the circulation.

In the same manner, violent inflammation of the bronchia, and even of

the tissue of the lungs themselves, may be induced. The inflammation, which is at first limited to the mucous membrane of the air passages, gradually extends to the proper tissue of the lungs; active fever is induced, and the disease, in some instances, gives rise to hepatization of the organs, suppuration, and other consequences. The functions of the nervous system sympathizing with the affection of the pulmonary apparatus, the activity of the whole organization becomes impaired, in consequence of impaired innervation; great prostration of the vital powers ensues, and death is finally the consequence. Under this form of the disease, the debility increases incessantly; the child loses the power of taking the breast, and of swallowing; it is constantly wakeful and fretful, and sometimes passes days and nights without sleep or a moment's quietude. The infant, after being at first fretful, and affected with more or less difficulty of respiration, is often seized suddenly with universal spasms, which continue with more or less intensity until death. These convulsions, however, differ from those which arise from an idiopathic affection of the brain, in being less severe, and always presenting themselves under a chronic form. They never assume the character of tetanus. Hence the act of nursing is not impeded by trismus, but by the embarrassment of respiration, the pain, and extreme prostration of the vital powers.

When the disease takes this form, Dr. Joerg thinks that the brain is not the seat of any organic affection, but that the disturbance of the nervous system is purely sympathetic. Hence he remarks, that on dissection, adhesions are found upon the surface of those portions of the lungs which the air has penetrated; and that these points are of a purplish hue, while the inflamed bronchia, and the portion of the lung in which they ramify, are of a whitish red color. The brain is found perfectly healthy, and nearly the same condition is observed in all the other parts of the system. p. 27.

While death may be rapidly induced in any one of the ways already described, it sometimes takes place more tardily, in consequence of the development of a general state of marasmus. How this may take place, can be readily conceived, when it is remembered that the small extent of the lungs which is pervious to air, must necessarily deprive the system of a sufficient supply of oxygen, and prevent the perfect elimination of carbonic acid gas, and other materials which are deleterious to the animal economy. The effect of the first must be, to withhold from the system its natural stimulus, and thereby to occasion, not only a general impairment of all the organs, but likewise a serious perversion of the nutritive acts of the system, and a depravity of the properties of the fluids. The imperfect elimination of carbonic acid will, moreover, contribute to the same result. That material, when it exists in too great quantity in the system, proves highly detrimental to the healthy acts of the organs, and frequently gives rise to serious functional disturbance.

The co-operation of these causes, impair innervation, and destroy the regular exercise of the nutritive acts. Important modifications of both the solids and fluids are, therefore, speedily induced; the functions of the organs undergo a corresponding derangement; marasmus or general atrophy finally ensue, and lead on generally to a fatal termination.

We shall not notice the observations of the author relative to the *diagnosis* and *prognosis*. They contain nothing very valuable, that may not be inferred from the foregoing remarks.

The treatment divides itself into preventive and curative. The first must have for its object the avoidance of the causes by which the disease is produced. These are represented to be: 1, a too easy or hasty delivery; and 2, injury sustained during labor, by the brain or spinal marrow. To obviate the effects of the first cause, the author insists upon the parturient female being kept in a perfect state of quietude, the whole process, where the labor takes a proper course, being left to nature. No officious means should be resorted to, with the object of hastening the delivery of the child. The means of preventing injury of the brain and spinal marrow, are those practised by all accoucheurs, and they should never be neglected. But if, notwithstanding all precautions, the development of the disease should be threatened; if the child should cry feebly or not cry at all; if the respiration should be superficial and imperfect, and the infant weak and inactive, means should be employed, without delay, to overcome this state of debility, nor should they be desisted from, until free respiration is established. Frictions should be diligently made upon the palms of the hands, soles of the feet, and the chest and back; the viscid mucus should be carefully removed from the mouth, and sulph. ether applied to the nose and fauces, and poured upon the chest. If after a sufficient delay, the umbilical cord should not pulsate, it should be tied and divided, and the infant put into a warm bath, where all the other means should be renewed. Injections should be thrown into the bowels from time to time, and every means of promoting perfect respiration should be called into requisition, and persevered in as long as can be done with safety.

When the difficulty depends upon injury of the brain or spinal marrow, more caution will be requisite. Too much stimulation under such circumstances might prove hazardous, and it will consequently be necessary to confide in more gentle means, and to apply them somewhat more gradually. The warm bath, of the temperature of 30° R. and affusions of warm water, frequently repeated, will contribute much to establish free respiration, and should be diligently employed conjointly with other remedies, for an hour or more, unless the desired effect should be sooner induced. Emetics, especially, will tend powerfully to relieve the lungs, by stimulating them to more vigorous action and promoting respiration. When not contraindicated, they should therefore be employed, either in nauseating doses, or so as to excite full vomiting. For this purpose, the

best articles will be, two or three grains of Ipecac., a drachm of the oxymel of squills, or half a grain of tart. Antim. Where there are cerebral congestions, however, these remedies cannot be employed; but calomel will be found useful under such circumstances, in relieving both the primary cerebral, and the consecutive pulmonary affection. It acts by gently stimulating the mucous membrane of the intestines; and eliciting a free secretion from its surface, thus deriving from the brain, and transferring the determination from the lungs to the bowels. In this way, the action of these latter organs will be relieved from restraint, and the abundant mucous secretion which fills the bronchial tubes, will be diminished in quantity, and removed by expectoration. The warm bath will be a most excellent adjuvant, and to render it more efficacious, it may be made a little exciting, by infusing in the warm water some aromatic plants; as thyme, marjorium, &c. When the infant is very feeble and cannot nurse, baths of milk and water, or pure milk, should be constantly employed, until it becomes able to derive nourishment from the mother. If the means already directed should not prove adequate to overcome the cerebral congestions, a sinapism or blister, an inch in diameter, should be placed behind the ear, or between the shoulders. When these remedies have made a favorable impression upon the disease, little more will be necessary afterwards, than to use the warm bath occasionally, to invigorate the skin, and promote the healthy play of the lungs. But should the symptoms assume a more threatening aspect, the calomel must be repeated frequently, with the view of relieving the head and lungs by derivation, and sinapisms should be applied, from time to time, to the neck, throat, chest, and extremities. The bath should also be continued, and when the debility is very great, repeated every two hours. In order to ensure the full distension of the lungs, and thus more effectually establish respiration, it might perhaps be useful to inflate them by means of a tube, passed through the nose.

Dr. Joerg has detailed several cases of the disease, two of which were successfully treated. We cannot, however, follow him further. We have rather attempted to present an analysis of his *brochure*, than a criticism upon its contents. We have derived considerable pleasure from reading it, and some advantage; and although there are some of his opinions to which we cannot entirely subscribe, we must do him the justice to say, that he has furnished a very good description of a disease of infancy, which does not seem to have been very well understood by his predecessors. Many of them have certainly described most of its leading characters, but they have generally considered it as a state of asphyxia, dependent upon simple pulmonary congestion. Mauriceau, Capuron, Billard, &c. have, however, described a disease which they have denominated congenital pneumonia, which bears some resemblance to this, and Billard has noticed particularly the state of respiration observed in the disease, but has not pointed out the solidification of the lungs which attends it.

An Inquiry into the Claims of Dr. William Harvey to the Discovery of the Circulation of the Blood, with a more equitable retrospect of that event. To which is added, an Introductory Lecture, delivered on the 3d of November, 1829, in vindication of Hippocrates from sundry charges of ignorance preferred against him by the late Professor Rush. By John Redman Coxe, M.D., Professor of Mat. Med. and Phar. in the Univ. of Penn. &c. pp. 258. Philad. 1834. C. Sherman & Co.

Here is a work truly unique in its character,—a perfect omnium gatherum of all things ever said or thought in reference to the circulation of the blood. The surprise of the reader will be doubtless equal to what was our own, when we first glanced over the ominous title page. What, Harvey not entitled to the glory of having first discovered the circulation of the blood! Yes, gentle reader, this was the startling intelligence which we fancied was about to burst upon us, when we first read the author's announcement. We took for granted, that the learned Professor had exhumed some mouldering papyrus from the ruins of former times, containing the intelligence that the glory of discovering the circulation of the blood was due to some renowned, but forgotten sage of antiquity. We almost fancied the laurels dropping from the brow of the immortal Harvey, where they have been so long suffered to repose; but our anxiety was soon tranquillized by the discovery, that all the author had to offer was, the oft told story of anastomosis and porosities between the arteries and veins, and what is well known, and has been generally conceded,—that the pulmonary circulation was understood by Servitus, Colombus, Cæsalpinus, and even Galen, long before the time of Harvey. Many of the predecessors of the latter, it has been always acknowledged, seem to have had some idea of a circulation, but that they fully explained or demonstrated it, has never been proved satisfactorily, nor has Professor Coxe, in our opinion, been more successful.

His book evinces a degree of labor and research unequalled in the annals of medical science in our country, and we can confidently recommend it to the curious. As to the "cui bono," we have nothing to say, except that every truth has its interest, and why not the important one, that Harvey was not the discoverer of the circulation? Our author may be accused of a blind devotion to the divine dictum of Hippocrates and Galen;—some perhaps may allege a charge of pedantry. This is not our business. We feel proud, that the oft repeated assertion, that American physicians are ignorant of the literature of their profession, cannot be sustained. Professor Coxe has fully vindicated us against these aspersions, and his book will long serve as a monument, to proclaim to our transatlantic brethren, that we too know how to dig from the rich mine of antiquity. For ourselves, we most cordially thank the Doctor for his labors, and when we write a book on the circulation of the blood, we mean to show our respect still farther, by availing ourselves of his reraseches.

COLLECTANEA.

Apis vero ratio media est; quæ materiam ex floribus agri et horti elicit, sed tamen eam propria facultate vertit et digerit.—Nov. Org.

1. *Remarks on an Anastomosis recently observed outside of the Liver, between the Vena Portæ and the Vena Cava inferior, by* Professor Retzius, of Stockholm.—In the spring of 1832, being employed in making preparations of the venous system, I met with various venous branches, which, coming from the duodenum, left colon, and rectum, formed a communication with and united themselves to the vena cava inferior. Having put a ligature on the vena portæ, where it enters the liver, I injected this vein below the ligature with an injection of a particular colour: in the same manner I filled the vena cava inferior, with an injection of another colour. In displaying the ramifications of the injected veins, I observed several small branches of the same coming from the duodenum, and emptying themselves into the neighbouring trunk of the *vena cava inferior*. Other venous branches coming from the left portion of the colon, joined the emulgent vein of the left kidney. Further, I observed, that some veins coming from the rectum, united themselves to the internal venous network of the organs of generation. These latter were the largest and most numerous. As the vena portæ and the vena cava were filled with differently colored injections, it was easy to distinguish the anastomosing branches by which they were connected. These observations, made on the body of a boy aged five years, were confirmed in two other subjects of the same age. A very minute examination disclosed the existence of a thick network of very minute venous twigs in the cellular membrane outside the peritoneum. The veins with which this network communicated were connected on the one hand with the vena portæ, on the other with the vena cava inferior. When the peritoneum is fresh, thin, and transparent, the largest of these vessels can be seen and traced with the naked eye. When the injection succeeds well these vessels may be seen on the posterior parietes of the abdomen proceeding to join the veins of the colon. They at the same time form numerous anastomoses with the veins of the kidnies, branches of the pelvic veins, as well as with other veins which empty themselves into the inferior cava, From this it appears that in the human body a communication exists between the vena cava inferior, and the vena portæ, which, so far as I am aware, has not yet been remarked by any writer. It can be most satisfactorily demonstrated by simultaneously injecting the trunks of the vena portæ, and of the vena cava inferior. The latter may be often successfully injected, even to its minutest branches, for its valves do not constantly present an obstacle capable of impeding the progress of the injected fluid. In this manner I once succeeded in filling the veins of the rectum with an injection from the vena cava inferior. The fine injection passed from the cava chiefly into the venous network of the cellular and muscular tunics of that intestine, while its mucous membrane on the contrary, was injected with the fluid that had been thrown into the vena portæ. I have made similar observations on the duodenum, and on some portions of the colon. It is more than probable that a similar distribution of vessels occur in all vertebrated animals, in many of whom indeed Jacobson has already announced its existence.

Professor Retzius is of opinion, that these numerous venous anastomoses in the various networks of vessels he has observed in the peritoneum, afford an explanation of the relief obtained by the application of cupping glasses or

leeches to the abdominal parietes, in cases where the bowels of the peritoneum are inflamed, for the blood thus drawn must influence not merely the circulation in the peritoneum, which lines the abdominal parietes, but also the system of the vena portæ.—*Zeitschrift für Physiologie*, B. 5. H. i. p. 105.—*Dublin Journal, July*, 1834.

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2. *Lymphatics in the Umbilical Cord.*—In the last number of this Journal, we inserted a notice of Fohman's discovery and successful injection of lymphatics in the placenta and funis of the human race. More recently a similar investigation has been undertaken, and with an equally satisfactory result, by Dr. Montgomery of this city, who has succeeded in injecting with mercury great numbers of these delicate vessels running along the cord, and for the most part, following the spiral course of the umbilical arteries.—*Ib.*

[In the last number of the Baltimore Medical and Surgical Journal, Dr. Roberts of this city inserted the case of a woman who had three mammæ, or nipples. The following case noticed by Professor Tiedemann, is of the same character.]

2. *Irregular Formation of the Breasts.*—Tiedemann remarks on this subject: "The human female presents irregularities of the breast not less frequently than other mammalia. In addition to the instances already recorded, I myself have observed the following:—In 1824, Maria R., born in Hagenfield, near Pforzheim, was admitted into our Lying-in Hospital. Her left breast was furnished with two nipples, each of which was enclosed within a separate areola. The supernumerary nipple was situated about three finger's breadth beneath the other. This breast on the whole was not larger than that of the right side. She was delivered of a son, and milk came in as great abundance from the supernumerary as from the other nipples.

In the year 1825; the body of a girl was brought into our dissecting room; she was about twenty years old, her breasts were beautifully formed, and well developed, but each furnished with two fully formed nipples, surrounded by a common areola. In 1829, the wife of a Dutch soldier named Walter, called for the purpose of consulting me, and during the examination of her chest, I observed, that the left breast was provided with two nipples, each of which gave milk, *and were surrounded with a common areola.* She assured me that her mother had exactly the same conformation.—*Ib.*

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4. *Cure of Diabetes Mellitus with Creosote.*—The following is a short account from *Hufeland's Journal*, for Feb. last, of an eighth case of the above disease, treated by Professor Berndt, of Driefswaldt, after having treated the preceding seven with opium, emetics, arsenic, bleeding, &c., all unsuccessfully. The seven all died. The eighth patient was a man fifty years of age, who daily passed seven and a half pints of urine, which, when analyzed, was found to contain a good deal of sugar. There were considerable thirst and appetite, and little sleep, but no hectic fever had appeared. An emetic was at first administered, and the patient then put on Rollo's diet, but without benefit. Finally, he was directed to take daily eight drops of creosote in sixteen pills of gum arabic. The thirst and appetite were soon reduced, the excretion of urine was brought down to three pints, and then to two. The dose of the remedy was now increased, and the animal diet suspended after three weeks employment. The urine now contained much less sugar, and began to offer some traces of urea. From this period the quantity of urine rapidly diminished, the sugar gradually disappeared, and the excretion finally assumed its natural qualities, and was discharged in regular quantity: the patient in a word was perfectly cured.—*London Lancet, June*, 1834.

5. *Rupture of a Varicose Tumour in the Vagina during Labour.*—A woman, about thirty years old, whose previous pregnancies and labours had not been attended by any thing extraordinary, observed, at the end of her third pregnancy, a soft tumour protruding from the vagina. The midwife was called in, and recommended bleeding, which relieved the patient, but did not remove the disease. The tumour continued to enlarge, but the woman was well in other respects, and never complained of pain. During labour, the very moment the head entered the pelvis, the tumour broke, and discharged six or seven pounds of blood. The patient immediately fainted, her extremities became cold, and she remained devoid of consciousness. I was sent for instantly, (says Dr. Steudel, the narrator of the case,) and went to her, accompanied by an accoucher. All our efforts to revive her were useless: the tumour was empty, and its cavity big enough to contain one's fist. We endeavoured to apply the forceps, but, as it always slipped off, turning was practised. The child, when it came into the world, was dead, and had a spina bifida.—*Archives Générales, from the Medizinisches Correspondenz-Blatt.—Medical Quarterly Review, July,* 1834.

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6. *Remarkable softening of the Bones.*—M. Roberti presented to the Anatomical Society, an example of ramollissement of the bones observed in the case of a female who had laboured under symptoms of paraplegia, and had been affected with a gangrenous slough over the sacrum. The whole of the bones of the skeleton were so soft, that they could be flexed in every possible direction, and broken by the slightest force. They could be cut with the same ease as common cartilage, and those of the cranium were so soft, that that cavity was opened with a common scalpel. The cavities of the long bones, which were much attenuated, contained a soft, pulpy, red coloured substance, in which delicate striæ resembling pus could be discovered. The osseous and medullary tissues were, however, highly vascular. The neck of the femur had entirely disappeared, and its head reposed directly upon the greater trochanter, upon which it moved. It was remarked by M. Roberti that the apparent paraplegia with which the patient was affected, and which was attributed to the eschar over the sacrum, was partially owing to this destruction of the neck of the bone.—*Archives Générales, Avril,* 1834.

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7. *New Method of Plugging the Nostrils in cases of Epistaxis.* By Dr. Miquel.—A piece of the intestine of a pig of medium growth, or of any other animal of proper size, about twelve or eighteen inches in length, should be tied firmly at one end, and cut even with the ligature. By means of a gum elastic sound, or female catheter, this should be conveyed through the nostril, until it is arrested by the posterior wall of the pharynx. By inflating it with air, the tickling of the fauces occasioned by the distension of the posterior extremity of the intestine, will excite coughing, by which the inflated end of the gut will be projected through the mouth, where it should be seized by the surgeon. While an assistant holds the end of the intestine which hangs from the nose, a thread should be attached to the posterior ligature, and a second ligature applied to the posterior part of the intestine, far enough from the first to form a globular mass of the inflated portion, as large as the end of the thumb. Then drawing the intestine forward through the nose, this globular tumour should be carried back behind the palate, where it should be drawn forwards, by pulling at the anterior end of the gut, to wedge it firmly in the posterior nares. This done, the gut is to be again inflated, and the air forced back firmly against the outer opening of the nostril, where it must be confined by tying the gut about three fourths of an inch from the nose. The thread attached to the posterior ligature will serve to withdraw the gut, when it becomes necessary to remove it. In the interim, it may be attached to the anterior end.—*Lancette Francaise, Avril,* 1834.

8. *Singular case of a Foreign Body found in the Heart of a Boy.* By Thomas Davis.—On Saturday evening, January the 19th, 1833, I was summoned to attend William Mills, aged 10, living at Boughton, two miles from Upton. When I arrived, his parents informed me that their son had shot himself with a gun made out of the handle of a telescope toasting-fork. To form the breech of the gun, he had driven a plug of wood, about three inches in length, into the handle of the fork. The touch-hole of the gun was made after the charge of powder had been deposited in the hollow part of the handle; the consequence was, that when the gunpowder exploded, it forced the artificial breech, or piece of stick, from the barrel part of the gun with such violence that it entered the thorax of the boy on the right side, between the third and fourth ribs, and disappeared. Immediately after the accident the boy walked home, a distance of about forty yards.

By the time I saw him, he had lost a considerable quantity of blood, and appeared very faint. When I turned him on his right side, a stream of venous blood issued from the orifice, through which the stick entered the thorax. Several hours elapsed before any degree of re-action took place. He complained of no pain.

For the first ten days or a fortnight after the accident, he appeared to be recovering, and once, during that time, walked into his garden and back, a distance of about eighty yards; and whilst there he amused himself with his flowers, and even stirred the mould. He always said he was well, and was often cheerful, and even merry. There was no peculiar expression of countenance, excepting that his eyes were rather two bright.

After the first fortnight he visibly emaciated, and had frequent rigors, which were always followed by faintness. The pulse was very quick. There was no cough nor spitting of blood. The secretions were healthy. He had no pain throughout his illness.

He died on the evening of the 25th of February, exactly five weeks and two days after the accident occurred. At the examination of the body there were present the Hon. W. H. Coventry, Mr. Walker, the father of the boy, Mr. Sheward, surgeon, and myself.

On opening the thorax, a small cicatrix was visible between the cartilages of the third and fourth ribs, on the right side, about half an inch from the sternum.

There was no effusion of blood, or of serum, into the sacs of the pleura.

The lungs appeared quite healthy, excepting that there was a small tubercle in the right lung, and at its root, near to the pulmonary artery, a small blue mark in the cellular tissue, corresponding in size with the cicatrix on the parietes of the chest.

Heart and Pericardium.—When the pericardium was divided, about half an ounce of serum was found in it.

The heart, externally, appeared healthy.

When an incision was made into the heart, so as to expose the right auricle and ventricle, we were astonished to find, lodged in that ventricle, the stick which the boy had used as the breech of the gun, the one end of it pressing against the extreme part of the ventricle, near the apex of the heart, and forcing itself between the *columnæ carnæ* and the internal surface of the heart; the other end resting upon the auriculo-ventricular valve, and tearing part of its delicate structure, and being itself encrusted with a thick coagulum as large as a walnut.

We searched, in vain, for any wound, either in the heart itself, or in the pericardium, by which the stick could have found its way into the ventricle.

Observations.—This case strikes me as one of the most interesting on record. In the first place, that this child should have survived such an accident, as the lodgment of a stick, three inches in length, in the right ventricle, and have

been afterwards equal to so much muscular exertion as he was, appears wonderful, especially if we consider the mechanical difficulty which the heart had thereby to encounter in carrying on the circulation of the blood.

In the next place, it appears somewhat difficult to point out how the stick found its way into the right ventricle of the heart. There was no wound, nor remnant of a wound, either in the pericardium, or in the muscular structure of the heart. The stick seems to have entered the mediastinum, without wounding the anterior part of the right lung, but to have wounded the posterior portion of the lung near its root. What became of the stick afterwards is uncertain, excepting that we know it found its way into the heart.

I am inclined, myself, to think that the stick, after wounding the lung, passed into the vena cava, and was carried by the stream of blood, first into the right auricle, and then into the right ventricle, where it became fixed, in the manner before specified.—*London Medical Gazette, July,* 1834.

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9. *Treatment of Scrofula.* By Dr. Pitschaft, of Baden.—Dr. Pitschaft considers factitious cinnabar, cicuta, cinchona, acorn coffee, and in obstinate cases, minute doses of merc. precipit. rubr. and salt bathing as specifics in the treatment of scrofula, and its formidable products,—spina ventosa, paedarthrocace, coxalgia, &c.

To a child two years old he prescribes a portion of the following powder every morning, an hour after breakfast, and another again in the evening. ℞. cinnab. fact. ℈i. Herb. cicut. gr. ij. merc. precip. rubr. gr. i. Sacch. abb. ℥ ss. ft. pulv. et divid. in xx. part. æq. For those of greater age he increases the quantity of cicuta to 10, and of the cinnabar to 40 grains. The mercurial preparations, as corrosive sublimate, and red precipitate, are very well borne by young children, when administered in minute doses. In obstinate cases he employs frictions with the ointment of borax, and of iodine; and in scrofulous ophthalmia, he uses the former of these ointments, while the above medicines are administered internally. In very obstinate cases of this affection, the *Bals. Ophth. Gr.* is substituted for the borax ointment. Under ordinary circumstances the acorn coffee and the saline baths will consummate the cure; but in obstinate cases, when there is great cachexie, the cinchona is indicated. It is absolutely necessary to take the disease at its commencement, in order to secure an effectual cure, and if this be done, the most happy results may be expected. The above powders should be continued two, three, four, or more months, according to circumstances, and where the stomach is enfeebled, one or two grains, according to the age of the patient, of the watery extract of aloes should be added to the powders. The application of leeches to scrofulous glands is highly objectionable, and the use of the knife is still more so.

[*Hufeland's Journal für Praktisch, Heilkunde, Oct.* 1833.

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10. *Longevity.*—The case of a shepherd of Potolski, is reported in the Petersburger Zeitung, who lived to the age of 160 years. One of his sons attained the age of 120; another 97.—*Hufeland's Journal für Praktisch. Heilkunde, Sept.* 1833.

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11. *Chronic Rheumatism cured by surrounding the limb with the green leaves of the common Birch,* (*Betula Alba.*)—Dr. Augenstein reports the case of a young man who had been sorely afflicted with rheumatism from childhood, which had rebelled against all treatment. Having been informed that the birch leaves had relieved other persons similarly affected, he obtained permission from his physician to give them a trial. A sack was provided long enough to extend from the foot to the middle of the thigh, which was filled with the fresh leaves perfectly free of moisture. Into this the patient thrust his whole leg when he retired to rest at night, and so adjusted the sack and leaves that

the whole limb was completely surrounded. The whole apparatus was then carefully bound upon the member so as to prevent any displacement. On calling to inquire after his patient next day, he found him in high spirits, and ascertained from him that he had rested comfortably, except that he had been somewhat incommoded by the heat and profuse perspiration excited by the leaves. On examining the interior of the sack, it was found considerably heated, and the foot, leg and thigh completely bathed in perspiration, their aspect being similar to that which is presented by a part which has for some time been bathed in warm water. The stiffness of the limb was already much diminished, and by a repetition of the remedy, the disease was completely removed. A second case was treated by Dr. Augenstein by the same process, and with a happy result.—*Rust's Magazin für die gesammte, Heilkunde*, 1833.

12. *Hypertrophy of the Cranium.*—M. Breschet lately presented to the Academie Royale de Medécine, the cranium of a child, aged 8 months, who had died of convulsions. At some points the cranial bones were at least an inch in thickness. This hypertrophy, so rare at this early age, was confined to the vault of the cranium, the base, and the bones of the face, not being affected.

13. *Improved process for the preparation of Kermes Mineral.* By Just Leibig.—Four parts of the powdered sulphuret of antimony, are mixed with one part of dessicated carbonate of soda, and submitted to a red heat until the mass attains a tranquil state of fusion. Care must be taken not to employ an iron instrument to stir the mixture. The fused mass should be poured upon a tile, when on cooling, it will fall into a kind of powder susceptible of a very minute division. A portion of this mass, finely pulverized, is to be boiled for one hour, with a solution of two parts of carbonate of soda in sixteen parts of water. The product is then to be filtered, and the solution left to cool. The kermes is precipitated, and promptly separated from the supernatant fluid, and falls to the bottom in form of a heavy powder. The mother liquor should be decanted and boiled a second time with the residue of the first process, and this operation may be repeated until the yellow or brown crocus can be no longer obtained, a portion of kermes being precipitated after each boiling.

Leibig represents that more kermes is obtained by this process than by that of Cluzel; that it is of uniform strength, of a bright fire color, and a crystaline appearance. He remarks, however, that kermes should never be washed with hot water, which decomposes it, and acts much more upon the oxide of antimony than upon the sulphur. Geiger and Hesse had previously observed, that if freshly prepared kermes be suddenly boiled, it will be rapidly decomposed, the sulphur passing off in form of sulphureted hydrogen gas, leaving only the oxide of antimony behind.—*Journal de Pharmacie, Mars*, 1834.

14. *Tartar Emetic Ointment for Indolent Buboes.*—At a sitting of the Academie Royale de Medécine, in February last, M. Yvan, Jr. addressed a communication to that body, stating that indolent buboes, which had rebelled against iodine, blisters, &c. yielded readily to the tart. emetic ointment, of the strength of one drachm to the ounce.

15. *Precocious Puberty in a female child who Menstruated at the age of nineteen months.*—By Dr. J. F. Diffenbach. This remarkable child was of the natural size and form at birth. After the first month it began to grow rapidly, and especially in thickness. At nine months it was about the size of a child of a year and a half old, and about this period the mother remarked the escape of a bloody fluid from the vagina, which amounted altogether to about two drops. As it continued to grow, it experienced, at the age of eleven months, a second discharge from the same part, somewhat more copious than the first.

At this period, the mother discovered some enlargement of the mammary glands, and the development of hairs upon the mons veneris. The bloody discharge took place a third time at the thirteenth, and a fourth at the eighteenth month. The first blood had a light, the last a dark color.

The length of the child at this period was three feet; the breadth across the shoulders nine inches. The circumference of the thorax below the arms was one foot ten inches; the circumference of the pelvis one foot ten inches, and the distance from one crista of the ilium to the other, at its anterior part, seven inches.

In intellectual development, the individual did not differ from other children of the same age. The precocious development of the sexual parts, which were covered sparsely with short thick black hair, the early appearance of the menstrual evacuation, and the enlargement of the mammary glands are very remarkable circumstances. Still there was no manifestation of venereal desires. Both parents were weak emaciated individuals, who followed the trade of weaving.—*Meckel's Archives für Anatomie und Physologie.*

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16. *Method of operating for strangulated Hernia.* By Dr. Colliex, of Turin.—An incision is commenced a good half inch above the upper orifice of the canal, the point of which will be indicated by the projection of the viscera contained within the funnel-like arrangement of the neck of the sac. This incision should be extended to the bottom of the hernial tumor, if it should be considered necessary to open the sac,—only an inch below the inferior orifice of the canal, if this latter procedure should not be thought necessary. The integuments being thus divided, instead of proceeding to expose the sac in the usual manner, the aponeurosis, or expanded ligament which forms the anterior wall of the hernial canal should be laid bare, which may be done by dividing the cellular tissue by a bold sweep of the knife, as there is nothing which it would be dangerous to cut. While an assistant draws the hernial tumor downwards, the surgeon proceeds to pinch up the fibres which compose this aponeurosis, in a pair of dissecting forceps, first commencing with those which form the inferior orifice of the canal. Each fasciculus being thus put upon the stretch, is to be divided in succession, with a straight bistoury, commencing with those below and proceeding upwards, until the whole extent of the anterior part of the canal is laid open. On arriving near the superior orifice of the canal, the tip of the index finger should be insinuated, if possible, between the contour of the opening and the neck of the sac, to determine the situation of the epigastric artery, and direct the dilation of the stricture. If the hernia is recent, and small, an attempt should then be made to reduce it without dividing the sac, care being taken to prevent the sac from returning with the protruded organ. If the reduction cannot be accomplished, the sac must be opened in the usual manner. Having opened the sac in this manner, before the stricture is divided, it should be drawn gently downwards, in order to bring that portion of the neck of the sack which is situated above the superior opening of the canal, below it. The edges of the divided sac should then be seized on each side with dissecting forceps, and as near to the upper part of the incision as possible, and drawn downwards and outwards by assistants, while another assistant depresses the viscera, so as to separate them as much as possible from the anterior part of the neck of the sac, which is then to be divided by cutting from without inwards and from below upwards,—of course towards the contents of the sac, and in a direction the reverse of that usually pursued. All constricting force being thus overcome, the intestine may be drawn downwards, and the finger introduced in order to ascertain if there is any internal stricture. It only remains to return the protruded organ, and dress the wound in the usual manner.

The advantages of this operation are, according to the author, that the character of all the parts which have to be divided is previously determined,

either by the sight or touch, and consequently less hazard is incurred of inflicting injury, to which there is so great a liability, in operating in the usual manner, when the parts divided are screened from the view of the operator.—*Revue Medicale, Avril*, 1834.

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17. *Ossification of nearly the whole extent of the aorta and pulmonary artery mistaken for an aneurism of the heart.*—A female, aged 73, entered the hospital, St. Louis, affected with a dry, sallow, discolored state of the skin, except that of the face; œdema of the feet, legs, and posterior part of the thighs; a disagreeable cold and pricking sensation of the lower extremities; strong and habitual throbbings about the heart, which however were regular, especially when she remained quiet. In her youth, she had enjoyed excellent health, but for five years previous to the date of her admission, she had suffered much from embarrassment of her respiration, extreme liability to take cold, and frequent and violent palpitations of the heart. On the examination of her body, which was made after death, serum was found effused into the abdomen and thorax; the heart was perfectly healthy; the tricuspid valve presented some small points of ossification; one of the semilunar valves presented a small osseous concretion, about a line and a half in diameter, and the pulmonary artery, from its origin to its bifurcation, as well as the aorta, from the arch to the second lumbar vertebra, were ossified throughout nearly their whole extent.—*Archives Générales, Fev.* 1834.

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18. *Of the Chemical properties of the Secretions in Health and Disease, and of the existence of Electrical Currents determined in organized bodies by the acidity and alkalinity of the membranes.* By M. Donne, *Chef de Clinique Medicale a l'Hopital de la Charité.*—1. From the whole surface of the skin is secreted an acid humor. The sweat, however, instead of being, as is generally said, very acid under the arm-pits, and round the genital organs, is, on the contrary, as alkaline in these parts as at the toes.

2. The digestive canal from the mouth to the anus secretes an alkaline mucus, except in the stomach, where the gastric juice is very acid. Thus the saliva and the mucus of the œsophagus, as far as the cardia, are alkaline in a healthy state, and become acid only in consequence of disease. From the pylorus to the end of the intestinal canal, the mucus furnished by the mucous membrane itself is alkaline.

3. Serous and synovial membranes all secrete an alkaline liquor in a normal state, which in certain diseases sometimes becomes acid.

4. The external acid and the internal alkaline membranes of the human body represent the two poles of a pile, the electrical effects of which are appreciable by the galvanometer. Thus, in placing one of the conductors of the instrument in contact with the mucous membrane of the mouth, and the other in contact with the skin, the magnetic needle deviates fifteen, twenty, and even thirty degrees, according to the sensibility of the galvanometer, and its direction indicates that the mucous or alkaline membrane takes negative electricity, and the cutaneous membrane positive electricity.

Independently of these two great surfaces presenting opposite chemical states, there exist other organs, the one class of which may be called acid, and the other alkaline, and which produce the same result; between the stomach, for instance, and the liver of all animals, extremely powerful electrical currents are found.

5. M. Donné has observed electrical phenomena of the same kind in vegetables, of which he gives examples, but electrical currents in vegetables are not produced by the acid or alkaline state of the parts as in animals, because the juice of fruits, at least such as M. Donné examined, is throughout more or less acid. Accordingly, however, to the beautiful experiments of M. Biot, the juices which arrive by the pedicle are modified on some part of the fruit,

and it is perhaps to this difference of the chemical composition of the juices of the two extremities that the electrical phenomena are to be attributed.

6. The acid humors of the economy may become alkaline, and *vice versa.*

7. Acidity is usually the result of inflammation, properly speaking, which, may be produced by sympathy in an organ situated at a distance from the inflamed point. Thus the saliva becomes very acid in inflammation of the stomach.

8. The acid which is developed in inflammation appears to be most frequently the hydrochloric. The presence of this acid produces coagulation of the albuminous part of the lymph, or of the serosity which abounds in inflamed parts. The false membranes in the serous cavities, the albuginous spots of the eye, the coagulable lymph of wounds, the thickenings of certain organs, and many other morbid productions resulting from inflammation, in which there is found by analysis only albumen, more or less coagulated, are owing to this.

Pus itself is produced by the action of the acid on albuminous lymph. It is a kind of union of the acid with the albumen. If free acid be not found in the liquids effused on the surface of inflamed organs, it is owing to the humors of the body being very alkaline, and containing sufficient potass and soda to neutralize the acid. In the memoir, however, of which this paper is a summary, M. Donné has cited many cases in which *pus* and even the serum effused into the abdomen in consequence of *peritonitis* were found acid. An analogous case was reported to M. Donné by M. Dumas, and another is mentioned by Berzelius in his treatise on chemistry.

9. The changes in the chemical nature of the secretions react on the different systems of the economy, forming an interesting order of lesions and symptoms in connexion with the etiology, the diagnosis, and even the treatment of diseases. These changes, according to M. Donné, produce modification of the electrical currents which exist between the different organs of the economy.—*Journal Universel.—Edinburgh Med. and Surg. Journal, July*, 1834.

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19. *Conclusions of* M. M. Breschet *and* Roussil *relative to the structure and functions of the skin.*—If this cursory recital has been correctly understood, it would appear to result, from our long and difficult labors, that we have discovered numerous conformations of the highest importance, which will produce greater precision and exactitude in the appreciation of the laws which govern inervation, perspiration, or cutaneous exhalation, coloration of the skin, production of epidermic tissue and their appendages.

Thus we have endeavoured to prove, first, that there exists in the skin an apparatus adapted to the secretion of perspirable matter, composed of a glandular parenchyma which elaborates this liquid, and of ducts by which it is exhaled. These excretory canals are arranged in a spiral manner, and open very obliquely beneath the scales of the epidermis. Secondly, that the organs of absorption differ in some respects from the lymphatic vessels or veins, with which they however appear to communicate. These organs present the form of transparent ducts, which possess an extreme fragility, and form ramifications or little communicating loops, in which we were unable to detect any terminal orifices adapted to absorption. This circumstance inclines us to believe that this function is incapable of being performed by suction, but results rather from imbibation, or from a mechanism analogous to that of endosmosis. Thirdly, that the medium in which these canals are distributed is a substance produced by true secretion, which being strongly hygrometrical, form a body, by means of which the phenomena of that which we still call absorption are capable of being effected. This absorption is more promptly and easily performed by the mucous surfaces, only because in these tissues the mucosity, which we compare in many respects to the epidermis, is less dense, and more readily

mixed with the liquids which are required to be absorbed. Fourthly, that the papillary bodies are essentially nervous, and that the filaments, which enter into the composition of each papilla, do not terminate in the formation of a bundle, in which each twig would be free and isolated, but the ramusculi appear to present terminal loops or arches. Fifthly, that the papillæ are enveloped by a distinct membrane, and by a layer furnished by the corneous substance of the epidermis. Sixthly, that sanguineous vessels, much less voluminous than the nervous filaments, penetrate this substance. Seventhly, that the different horny layers of the epidermis constitute a peculiar apparatus composed of an organ of secretion, and of a product arranged in fibres, which are at first perpendicular to the cutis, but which afterwards become horizontal. These fibres or little twigs result from a superposition of small scales, and the epidermis, properly so called, is only the extremities of these fibres, which are the most distant from the cutis. Eighthly, that absorbent canals and nervous papillæ are expended in this epidermic substance formed by squamous prolongations. Ninthly and lastly, that, independent of the secretory apparatus situated in the epidermis, there exists in the skin, towards the external surface of the cutis, a small apparatus for the secretion of the coloring matter.—*London Medical and Surgical Journal, April,* 1834.

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20. *Colchicine.*—This alkali is stated by MM. Geiger and Hesse, who have succeeded in obtaining it, to crystallize in slender spires, and to possess an extremely bitter taste. Taken into the nostril it does not excite any irritation, whilst the least portion of veratrine causes violent sneezing: it is, however, equally poisonous with the latter, as the following experiment showeth. A tenth of a grain, dissolved in a small portion of weak alcohol, was given to a cat about six weeks old; in a short time froth appeared about the animal's mouth, and in the course of an hour it was violently purged; it then vomited, tottered in its walk, fell, rolled from side to side, uttered moaning sounds, and appeared agitated with convulsive movements. These symptoms increased in severity, and caused death at the end of twelve hours. The intestinal canal was found inflamed, and there was effusion of blood throughout its whole extent. For the purpose of comparing the effects of this substance with veratrine, the twentieth part of a grain of the latter was given to a cat a little younger than the former;—the animal was affected in the same way, but more rapidly, for it died in ten minutes. The superior part only of the œsophagus was found inflamed, an appearance which was not observed in the cat poisoned by colchicine.—*Journal de Pharmacie.—Ib.*

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21. *Hyoscyamine.*—It is from the seeds of the hyoscyamus niger that this substance, which is formed in transparent needle-shaped crystals, is extracted. Its savor is acrid and disagreeable, like that of tobacco, and its actions are equally poisonous with that of *atrophine.* The least portion placed on the eye causes a dilatation of the pupil, which remains for a considerable length of time. In a dry state it is not an alkali, but by the addition of water it soon becomes so.—*Ib.*

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22. *Daturine.*—The same chemists, MM. Geiger and Hesse, have extracted this aklali from the *datura stramonium.* It crystallizes in the form of small, colorless, and brilliant prisms; it is free from odor; its taste is at first slightly bitter, but afterwards very acrid; it is very poisonous, one eighth of a grain sufficing to kill a sparrow in three hours. It possesses an action over the pupil of the eye similar to that of hyoscyamine.—*Ib.*

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23. *Codeine.*—According to M. Barbier, the codeine of M. Robiquet differs in many respects from morphia and opium: an ounce dose, containing a grain of this preparation, administered either in syrup or in an aqueous solution, acts

principally upon the nervous centres of the great sympathetic, especially in the epigastric region. In gastralgia, where the patient complains of pain and weight under the inferior end of the sternum, increased upon pressure, perspirations, palpitations, hiccup, nausea, syncope, &c. the syrup is of the most essential benefit, almost always giving relief. This substance generally produces calm sleep, very different from that obtained from opium. It never occasions weight in the head, numbness or congestion of the brain, but appears on the contrary to create exhilarating sensations. At the Hôtel Dieu, at Amiens, M. Barbier has administered it to women who were suffering at the same time from gastralgia and nervous pains in the head, loins and thighs. The stomach was much benefited by its use, but it did not appear in the slighest degree to exert any influence on the latter.—*Ib.*

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24. In the last number of our esteemed cotemporary, the American Journal of the Medical Sciences, Dr. Harris has reported some very interesting cases of neuralgia treated by galvanism, administered by means of Mansford's plates. We have employed the same treatment in several cases of chronic disease, with a very happy result, and within a few days in a case of Asthma. The following are the directions given by Mansford:

"It was said, that in order to fulfil the indication stated at the commencement of this section, it was desirable to establish a negative point as near the brain as possible, and a positive one in some distant part of the body. Accordingly, a portion of the cuticle of the size of a sixpence being removed by means of a small blister on the back of the neck, as close to the root of the hair as possible, and a similar portion in the hollow beneath, and on the inside of the knee, as the most convenient place: to the wound in the neck, a plate of silver, varying according to the age of the patient, from the size of a sixpence to that of a half crown, was applied—having affixed to its back part a handle or shank, and to its lower edge, and parallel with the shank, a small staple, to which the conducting wire was fastened. This wire descended the back till it reached a belt of chamois leather, buttoned round the waist—it then followed the course of the belt, to which it was attached, till it arrived opposite the groin on the side it was wished to be used; it then passed down the inside of the thigh, and was fastened to the zinc plate in the same manner as to the silver one. The apparatus so contrived was thus applied:—a small bit of sponge moistened in water, and corresponding in size to the aperture in the neck, was first placed directly upon it—over this a larger piece of sponge of the same size as the metallic plate, also wetted, was laid—and next to this the plate itself, which was secured in its situation by a strip of adhesive plaster passed through the shank on its back, another above, and another below it. If these be properly placed, and the wire which passes down the back be allowed sufficient room that it may not drag, the plate will not be moved from its position by any ordinary motion of the body. The zinc plate was fastened in the same manner—but in place of the second layer of sponge, a bit of muscle answering in size to the zinc plate was interposed: that is, a small bit of moistened sponge being first fitted to the aperture below the knee, the piece of muscle also wetted then followed, and on this the plate of zinc. The apparatus thus arranged will continue in gentle and uninterrupted action from twelve to twenty-four hours, according to circumstances. This last is the longest period that it can be allowed to go unremoved: the sores require cleaning and dressing, and the surface of the zinc becomes covered with a thick oxide, which must be removed to restore its freedom of action; this may be done by scraping or polishing: but it will be better if removed twice a day, both for the greater security of a permanent action, and for the additional comfort of the patient."—*Mansford on Epilepsy.*

25. *Treatment of Fistula in Ano by compression.* By M. Lisfranc.—A square pledget of soft linen is to be introduced into the rectum, and pushed up with the point of the finger above the inner orifice of the fistula, or the level of its blind termination, when it is not complete. With the tip of the finger slightly flexed, the linen should then be spread out, so as to form a kind of purse, with its bottom directed upwards, and its cavity completely filled with balls of soft lint, introduced by means of dressing forceps. A plug should thus be formed, having an expanded extremity like the head of a nail. The edges of the piece of linen should then be drawn downwards, so as to make the compression act against the sphincters, and the course of the fistula, in which situation it must be confined, by means of pledgets of lint laid upon the perineum, and an appropriate bandage applied over the other dressings. Care should be taken to leave the orifice of the fistula open, in order that the discharge of the matter may not be prevented. Where there is not much pain, the compress may be suffered to remain twenty-four hours, when it must be removed, to suffer the individual to go to stool, and be afterwards re-applied as before.—*Journal de Medicine et de Chirurgie Pratique Avril*, 1834.

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26. *Atropine.*—MM. Geiger, Hesse and Mein have succeeded in extracting this alkaline substance from the Atropa Belladonna. They have obtained it separately from the same plant by two different processes, each, however, offering the same properties. It is white, and crystalizable, in transparent prisms, in silky shining groups. Water of the ordinary temperature only dissolves one-hundredth part. The aqueous solution renders turnsole paper, reddened by acid, blue; in the same state of solution it possesses the power of dilating the pupil of the eye, which state continues for some time; it also gives an abundant white precipitate on adding an aqueous infusion of gall nuts. Hydro-chlorate of gold precipitates it of a yellow citron color; it is insoluble in solution of platina, is very little altered by the addition of chloride, and appears to form with acid subsaline compounds.—*Lon. Med. and Surg. Journal, April*, 1834.

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27. *Aconitine.*—The aconitine which has been discovered in the leaves of the *Aconitum Napellus* is not susceptible of crystalization. In the purest state it is grained, and in transparent colorless masses. The savor is first bitter, then acrid, the latter taste, however, being neither powerful or of long duration, very different from that of the plant, which often remains for more than twelve hours, and leaves the tongue benumbed. The acrid principle resides, entirely in the aconitine, and may be separated by several times combining this alkali with acids. One-fiftieth part of a grain dissolved in alcohol suffices to kill a sparrow in a few minutes, and one-tenth of a grain destroyed a little bird with the rapidity of lightning. It dilates the pupil of the eye, but its action is evanescent.—*Ib.*

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28. *Sarsaparilline.*—M. Thubeuf considers this substance as the active principle of sarsaparilla, since it causes water to froth when shaken, and gives it the acrid and bitter taste which this vegetable imparts to its aqueous and alcoholic macerations. Seen by the aid of a microscope, it offers an assemblage of radiated crystals, of which the laminæ are convergent at their extremities, and has not the slightest action upon turnsole paper. In a state of purity, the sarsaparilline is white, without odor, and, in the dry state, with scarcely any savor. In cold water it is scarcely soluble, whilst it is readily dissolved in boiling, although, on cooling, a great part is precipitated. Alcohol, either cold or hot, dissolves it, but, on adding a little water to these solutions, it may be precipitated, and, on evaporation, will crystallize. Equal parts of æther and alcohol at an increased temperature readily dissolve it, whilst æther alone, even in the boiling state, completely fails in so doing.—*Ib.*

VARIETIES.

O curas hominum! O quantum
est in rebus inane!——

JEFFERSON MEDICAL COLLEGE.

"I know them, yea,
And what they weigh, even to the utmost scruple."
"*Much Ado about Nothing*, Act v. scene 1.

What *cracker* is this same which deafs our ears
With this abundance of superfluous breath?
King John, Act i. scene 1.

Mr. Editor,—

You have doubtless seen the "annual announcement" of lectures of Jefferson Medical College in Philadelphia, as well as the solemn animadversions that have been made on its statements, and mistatements, in certain of the newspapers. How these productions have impressed you I know not, but it does appear to me, that the objects of that ingenious paper have been misunderstood, and that it has been regarded in a more serious manner than it merits, or than the "Trustees and Professors" wished. It is not more than a week since I received the following communication on the subject from one of the most eminent Physicians in the Union,—one who, it will be observed, is anxious—over anxious I think in this case—to uphold the dignity of the Profession against all who "run a muck" at it. "I presume," says he, "you have seen the 'Jefferson Medical College Announcement' for next winter, and perhaps also a few strictures on it in an 'Extra Lexington Intelligencer.' Permit me, therefore, to ask you—Is it not proper, and even *necessary*, for honorable and fair-minded teachers of medicine to frown, in some public manner, on a production, so eminently calculated to bring their important profession into disrepute? For that such is the direct tendency of the 'Announcement,' as far as such a *charlatanical tirade* may avail, cannot be doubted. It is, moreover, as *untrue*, as it is *undignified*. Nor is this all. It is a bravado, insulting, in its manner, to all other Schools of Medicine. Do you tell me that such a noisy, boastful concern as the 'Jefferson Medical College' will ultimately die of its own emptiness, and venom? So does the rattle snake die, some say, of its own poison. But is that any good reason, why you should not stamp on it, when threatening to bite you? In truth, sir, forbearance may be carried too far, even toward an insignificant thing; and I do think that the cause of Medical Instruction calls for a stern and general rebuke to so *shameful* an outrage on its dignity and standing, as a business in which honorable men are engaged;"—and he adds in a postscript—"I do not ask you whether you disapprove of the 'Announcement.' I know you do. Can you not, therefore, by a few remarks in the newspapers, or in some other way,

make your reprobation of it publicly known, and thus aid in damning it? Such an unworthy, and in every way reprehensible effort ought not to pass unchastised. A few paragraphs, in a few papers, would teach the Jefferson Faculty a lesson they would not soon forget."

Now, really, either my estimable friend has mistaken the purport of this "fire, and smoke, and bounce," or else I have. Were the authors of the "Announcement" serious, I should think with him, and consider that no language was too strong to express my objections to the reproachful course, adopted by the "Trustees and Professors of Jefferson Medical College" for drawing students to their school. But as I said before, I do not regard the production in so solemn a light, but rather esteem it as a kind of serio-comic interlude, between the play and the entertainment, to prepare the audience for the harlequinade that is to succeed. The reasons that have led me to this deduction are as follows, and I think you will agree with me that they are cogent.

Imprimis.—I cannot believe, that any body of Professors could be found who could so far forget what is due to themselves and to the honorable Profession they are engaged in pursuing, and in teaching, as to boast of the elevation *they* have attained above all the schools of the Union *save one*, and, by implication, to desire to have it inferred, that they are equal if not superior to that one also. "*Two years ago*," say the authors of the Announcement, "they are aware that the sister Institution"—the University of Pennsylvania—"possessed advantages on the score of reputation, and that this naturally operated powerfully in inducing young gentlemen, immediately on their arrival in the city, unhesitatingly to matriculate as students in that Medical School. This extrinsic advantage, however, no longer exists. It is now conceded by every person conversant with the subject, that JEFFERSON MEDICAL COLLEGE presents advantages and facilities for the acquisition of a medical education, which are not to be surpassed!" [That is, as I read it, "NOT *to be surpassed*," namely, "at this time, in the existing condition of medical science and education,"—by no means, as some cynical gentlemen would have it,—"*not* TO BE *surpassed*,"—that is to say, "either now or hereafter."] "Were evidence of this required, the single fact before adverted to would be conclusive, viz: that a number of students, after attending Lectures for one session, in *what had formerly been considered as the first Medical School in the United States*, had been induced, after a comparison of its merits with those of JEFFERSON MEDICAL COLLEGE, to select the latter, in preference, for the completion of their medical studies." Now, sir, the very arrogance exhibited in this quotation, and the omission of the Medical Department of the University of Maryland, whose reputation as a School for the attainment of sound medical education is generally admitted to be inferior to none in the Union, lead me irresistibly to the inference I have deduced.

Item.—There is an old law maxim—"*Nemo allegans suam turpitudinem audiendus est*,"—by which is meant, that no one is to be permitted to stultify himself. This truth is so generally felt, that we cannot believe the Professors of Jefferson College would solemnly publish to the world their own sense of their inferiority. Two years ago,—the Trustees and Professors affirm,—they were confessedly inferior in reputation to the University of Pennsylvania, but not so now. What then has happened to produce this change? But one

thing obviously—the addition to their school of their Professor of Anatomy, whose zeal, and ability, I would be amongst the last to deny. To him, therefore, the other Professors voluntarily ascribe all honor and glory. This humble and humiliating conduct is so unlike that of mankind in general, that it necessarily corroborates my deduction.

Item.—The inference is strengthened by the stress laid, in the "Announcement," on the signal advantages, which have been found to accrue to the students of Jefferson college, from drinking tea with the Professors—significantly, and after the European fashion, termed *conversaziones*, but also, in more homely English, often called "*Tea and turn out parties.*" "Impressed with the importance of cultivating the intimacy of the students, the Professors instituted last session a series of medical *conversaziones*, which were occasionally held in the Hall of the Museum on Saturday evenings. Tea and coffee were served, and the hours from 8 to 11 o'clock spent in agreeable, and intimate intercourse by the students and Professors. The effect of this naturally was an intimacy and friendly feeling between the parties, which led to the happiest results, and such as will encourage the Professors to continue their medical *conversaziones* for the future."

Only imagine, sir, what a stimulus to study;—and then how unlike the Deipnosophists of old, quaffing their Chian, and Falernian instead of the infusion of a dried herb, sweetened with sugar. I fancy I see the *toast* of Jefferson college as it went round, pledged by every man in his *cups;* the Professors enveloped in feelings of innate and acquired dignity;—

> "While words of learned length, and thund'ring sound,
> Amaz'd the gazing *students* rang'd around.
> And still they gaz'd, and still the wonder grew
> That such small heads should carry all they knew."

We hope, that the catastrophe, depicted by the poet, is yet far distant.

> "But past is all their fame, the very spot,
> Where many a time they *guzzled*, is forgot."

Item.—If the apparent strain of ostentation and vain glory, which pervades the "Announcement," were real, the admission, that the "Trustees and Professors" of Jefferson Medical College have *yet to form* a Museum, would never have been permitted to creep in. "Fully aware," say they, "of the value of preparations in the communication of instruction, the creation of a great Museum in connection with their Institution has been an object never lost sight of by its Professors." With this view, they have engaged the services of a Curator from London, and "from the progress, which has been made, since the arrival of Mr. Cosgrave, they feel confident that the Museum of the College *will become* all that the friends of the Institution could desire." To aid in the formation of this Museum, the smallest contributions of pathological specimens, it is said, will be thankfully received, and, as a reward to all charitable and ambitious individuals, their names will be (what?) "recorded!"

Nor should we have expected the Trustees and Professors to object to "*wax casts*," because they are showy. Such is the failing that its enemies ascribe to the "Announcement," with this difference only, as they ill-naturedly remark, that the former may be accurate in their representations, whilst the latter certainly is not: but this is a severity of judgment, which is by no means commendable.

It has also been suggested, that the objection to "filling their cases with showy specimens, such as "*wax casts*, &c. &c." is not exactly in keeping with a subsequent part of the paragraph, in which they assert, that the "Faculty, to render their collection still more rich in subjects of illustration, have ordered from Europe a large collection of *original drawings*, exhibiting on a large scale, anatomical, physiological and pathological demonstrations." "Why," say these testy gentlemen, "should the Trustees and Professors of Jefferson Medical College prefer showy plates to showy wax casts? Surely the latter are better adapted for conveying accurate instruction than the former."

Item, and *lastly*.—I maintain it to be impossible, that the authors of the "Announcement" could have meant any thing more than *facetiness*, as HALES terms it, when they inform the western students, that as the expenses of medical education, necessary for graduation, are only thirty-five dollars less in Jefferson Medical College than in the University of Transylvania, it is therefore as cheap for the western student to graduate in Philadelphia as in Lexington; in other words, that the sum of thirty-five dollars, (and a western physician, in the *Lexington* (Ky.) *Intelligencer* of the 2d of September, asserts the difference to be not more than ten dollars,) will be sufficient to pay the expenses of the journey from the west to Philadelphia *four times;* for the student, as the "western physician" remarks, must necessarily pass over the ground *four times* to attend two courses of lectures, or continue to reside in Philadelphia about eighteen months!! The *mileage*, scarcely sufficient to satisfy, we presume, a member of Congress, or a Professor of the Jefferson College, would, according to this estimate, amount in some cases to about one hundredth part of a cent per mile, or if we reckon the distance from one place to the other *twice* repeated, so as to exclude the journeys back, as is the mode of estimating mileage, to one fiftieth part of a cent per mile—the distance over which any western student would have to pass being, in every case, 2,500 miles, in some 3,000, and in others 3,500.

Such, Mr. Editor, are some of the reasons which induce me to consider, (although I am free to confess that no one, so far as I know, partakes of my opinion,) that the "Trustees and Professors" of Jefferson Medical College have meant nothing serious or offensive by the publication of their "Announcement," and that it has been intended merely as a harmless annual squib or "cracker," exploded so as to attract the attention of the public, and to divert them from the storm of politics, and from brooding over their pecuniary or domestic afflictions. Where, however, so many attempts to "raise the wind," have lately been made, and in this season of mania for balloons, and bubbles, they are apt to regard that as designing *gas*conade, which is more marked by insignificance and folly, and therefore meriting commiseration rather than anger.

DEFENSOR.

Baltimore, September 15th, 1834.

At a meeting of the Visitors of the University of Virginia, held in July last, Dr. Augustus L. Warner of this city was unanimously elected Professor of anatomy, physiology, and surgery, in that Institution. Dr. Warner has been for some time advantageously known in Baltimore, as teacher of anatomy and physiology, and from our personal knowledge of his abilities and acquirements we feel assured, that the visitors, and the friends of the Institution generally, will have every reason to be pleased with the appointment.